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SIMULATION D'HYPOTHESES EMISES PAR PROPP et LEVI-STRAUSS EN UTILISANT UN SYSTEME DE SIMULATION META-SYMBOLIQUE

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1.0. INTRODUCTION

Nous présentons ici les résultats de la construction et de l'exécution d'un modèle automatisé du travail fait par Propp dans "la Morphologie du Conte" en ce qui concerne les contes populaires russes à un mouvement. Cette présentation comprend un listage complet du code correspondant au modèle comportant en zone commentaire des références à la deuxième traduction anglaise de cet ouvrage (Propp, 1968), ainsi que le texte imprimé de 60 récits de contes différents générés par le modèle automatisé à la vitesse moyenne de 128 mots par seconde (ce temps comprenant le calcul de l'intrigue, de la structure profonde et de la structure en surface des phrases), le temps étant calculé pour des passages faits sur un Univac 1110.

Toutefois, afin d'introduire à la méthode, on présentera tout d'abord un modèle plus simple qui permet de produire les mythes 1, 2, 12, 124 et 125 de l'ouvrage de Levi-Strauss "le cru et le cuit" (1969). A la différence du modèle précédent, celui-ci ne permet de reconstituer que ces cinq intrigues et aucune autre. L'analyse de ce cas devrait rendre la compréhension du modèle de Propp plus aisée.

Dans une version précédente de cet article (Klein et al., 1974), un premier modèle permettant la reconstitution des mythes cités par Levi-Strauss était présenté. Pierre Maranda fit un commentaire critique de ce

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(1) Le manuel d'utilisation de ce système (MESSY * 3) peut être consulté en s'adressant à Monsieur Philippe RICHARD, Centre d'Ethnologie Française, 6 route du Mahatma Gandhi - 75116 PARIS.

modèle. Celui qui est présenté ici est une tentative pour satisfaire les contraintes minimales énoncées par lui comme nécessaires pour pouvoir simuler la démarche de Levi-Strauss, en particulier la possibilité de réaliser une transformation à double effet. Le modèle de Propp a également été révisé et les 60 contes merveilleux ainsi produits sont nouveaux.

Ces deux modèles ont été programmés dans un langage spécifique de simulation du comportement qui fait partie d'un système que nous avons décidé d'appeler un "système de simulation méta-symbolique". Ce système est capable de reproduire divers modèles de comportement et permet de leur associer systèmes syntaxiques et sémantiques.

Les modèles utilisés comme données dans le cadre de cette étude ne permettent de tester qu'une partie des possibilités et du domaine d'application du système de simulation méta-symbolique. Cette affirmation mérite d'être reprise : les modèles de Levi-Strauss et de Propp présentés ici sont des données qui permettent d'éprouver la validité du système dans lequel ils sont formulés. Un modèle permettant de produire des énigmes policières a également servi de test et le domaine d'application du système comprend des modèles démographiques et socioculturel de sociétés réelles.

L'idée d'utiliser des simulations du Folklore comme jeux d'essais fut suggérée au premier des auteurs (Sh. Klein) durant une conférence pluridisciplinaire tenue au Centre pour la recherche pluridisciplinaire, Bielefeld, Allemagne du 18 au 22 février 1974 ("The Role of Grammar in Non-automised and Automised Text processing Systems" ; la conférence était organisée par J.S. Petöfi et T.A. van Dijk qui sont parmi les principaux représentants des recherches nouvelles en matière de grammaires de texte. Un groupe de folkloristes participait à cette conférence, en particulier Heda Jason, Elli Köngäs Maranda, Dimitri Segal, Milaly Hoppal, et Michel de Virville. Jason, Segal et Köngäs Maranda nous persuadèrent de travailler immédiatement à la construction de modèles dans le domaine du folklore. Nous devons une reconnaissance particulière au travail de Pierre Maranda et Elli Köngäs Maranda, "A sketch of the Okanagan Myth Automaton" présenté par Elli Köngäs Maranda,

ainsi qu'à une étude faite par Philippe Richard et Michel de Virville. Pierre Maranda travaille par ailleurs à la construction d'un modèle automatisé de Propp.

Nous devons également citer Ed Kahn qui dans sa dissertation de Ph D (Kahn, 1973) fit mention du modèle d'énigmes policières (Klein et al., 1973, Automatic novel writing : a status report) d'une façon telle que le modèle utilisé comme test était confondu avec le système qui permettait de l'implémenter. Les remarques faites par lui à cette occasion ainsi que dans un débat publié par ailleurs suggéraient aussi que le système était incapable de traiter la complexité des quantifications logiques devant être utilisées dans des modèles adaptés au folklore. La présentation donnée ici, des modèles de Propp et Levi-Strauss devrait régler ce différent. Il faut aussi noter que cet article devrait répondre aux critiques formulées contre le développement des grammaires de texte par Dascal et Margalit (1974).

2.0. HISTORIQUE ET REFERENCE

Parmi les auteurs de cette étude, Lynne Price a produit le schéma du modèle de Levi-Strauss et Aeschlimann a écrit les instructions dans le programme de simulation correspondant, Applebaum et Kalish ont écrit le programme du modèle de Propp et Kamin s'est occupé des questions concernant le système. Aeschlimann, Appelbaum, Kamin et Lee sont les auteurs des principales additions au système de simulation méta-symbolique utilisées dans cette étude. Balsiger et Foster ont mis au point des modules qui génèrent le langage naturel et la rédaction des grammaires utilisées. Klein, Curtis et Price travaillent au modèle automatisé qui permettra de reproduire l'ensemble des mythes du "cru et le cuit".

Ce travail est une extension du système décrit dans l'étude de Klein et al. (1973), et Klein et al. (1971). Parmi les prédecesseurs directs de celui-ci, on compte Klein et Simmons (1963) Klein (1965 a et b), Klein et al. (1966). Une liste non-exhaustive de travaux en relation avec celui-ci comporte (réseaux sémantiques automatisés) : Quillian (1966), Schank (1969, 1972), Schank & Rieger (1973), Mel' Chuk &

Zholkovskij (1970) ; (variantes du calcul de prédicats du 1er ordre comme partie de la base sémantique dans un système permettant la production de langage naturel) : Mc Cawley (1968), Bach & Harms (1968), Lakoff (1969), Green & Raphael (1968), Coles (1968), Petöfi (1973) ; (Passage du langage naturel à des représentations sémantiques, systèmes de simulations et de déductions) : Kellogg (1968), Heidorn (1972), Simmons (en préparation), Green & Raphael (1968), et Coles (1968).

3.0. LE SYSTEME DE SIMULATION META-SYMBOLIQUE

On peut décomposer le système de simulation meta-symbolique en trois parties : un langage de simulation du comportement qui permet de représenter, de produire et de manipuler des événements dans un système de discours donné et ceci dans les termes fournis par la deuxième partie : un réseau sémantique composé d'objets et de relations abstraits. La troisième partie est un mécanisme de production qui va de la sémantique à une représentation de la structure de surface et qui permet de décrire les changements dans l'état du réseau sémantique dans le langage pour lequel la grammaire a été implémentée. Dans cet article, on ne considèrera que les principales caractéristiques de ce système. Une version plus détaillée de cette présentation se trouve dans Klein et al. (1973).

3.1. Langage de simulation, objets et relations

Chacune des instructions du langage de simulation se compose de deux parties : une liste d'actions et une liste de conditions. Les actions peuvent consister en adjonctions ou suppressions au réseau sémantique, ainsi que d'actions plus complexes qui seront décrites plus tard. Les conditions sont des tests portant sur la présence ou l'absence de structures déterminées dans le réseau sémantique. La réalisation de la liste d'action peut être une fonction déterministe ou aléatoire de la valeur logique prise par la liste des conditions. En ce sens, la relation entre conditions et actions peut être rapprochée de la "présupposition".

Un système de contrôle du "temps" gère l'enchaînement de l'application des différentes règles ou des groupes de règles. Toutes les règles d'un même groupe sont évaluées au même moment.

Les objets et les relations forment par leur combinaison des "triplets sémantiques", ceux-ci sont les unités fondamentales du système. A chaque objet sémantique (et à chaque relation) est attribué un numéro unique. Il en est de même pour les triplets sémantiques (qui se composent de deux ou trois objets en relation dissymétrique). Les règles du langage de simulation permettent la création ou la suppression du triplet. A chaque triplet est associé la "date" de sa création et celle de sa suppression. Si le même triplet est répété plusieurs fois, il lui est associé la liste des dates correspondantes.

Les objets et les relations sont des entités sémantiques abstraites. Leur signification réside dans l'ensemble des informations qui leur sont associées. Un objet sémantique est ainsi relié à plusieurs types de structures; parmi ces liens, il faut compter la référence lexicale qui consiste en une liste de renvois à un dictionnaire de racines appartenant au langage naturel retenu pour la représentation de surface. Les entrées de ce dictionnaire peuvent consister en racines de mots uniques ou de composés qui permettent l'expression d'objets ou de relations sémantiques. La liste de renvois de deux objets différents peut désigner la même racine (homonymie).

Un deuxième type de structure peut être associé à un objet ou à une relation ; il s'agit du "triplet lexical". La forme de celui-ci est la même que celle du triplet sémantique ; toutefois, les triplets lexicaux ne font pas partie du réseau sémantique (en particulier, ils ne leur est pas assigné un numéro d'identification). Les triplets lexicaux peuvent servir diverses fonctions, parmi lesquelles la représentation d'une unité sémantique par une expression idiomatique et plus généralement par une chaîne de mots incluant un verbe. Les objets et les relations dans les triplets lexicaux doivent être des unités déjà identifiées dans le système et sont eux-mêmes reliés à des listes d'expressions lexicales ou d'autres structures permettant leur représentation. Ainsi, la représentation récursive est-elle possible.

Un objet sémantique peut-être également relié à une liste de renvois vers des triplets appartenant au réseau sémantique. On dira dans ce cas que l'objet constitue un noeud "prédicat multiple" du réseau (chaque triplet ayant un numéro unique, la liste de renvois est en fait une liste de numéros). De tels "prédicats multiples" peuvent être utilisés comme des variables du discours. Ainsi, dans le discours, un objet abstrait peut être relié à l'expression lexicale "that" et associé à l'ensemble des triplets représentant l'expression "what John knows" afin de permettre la représentation d'une phrase du type "John knows that ...". Ces structures peuvent être réflexives et récursives sans limitation de niveau. Ainsi la liste de références d'un prédicat multiple qui apparaît dans un triplet peut comporter le numéro d'identification de ce même triplet. Ceci permet la représentation de structures de surface du type : "he knows that he knows ...".

Le système permet également la définition de classes dont les règles d'appartenance peuvent être modifiées sous l'effet des actions incluses : les classes d'objets et les classes de relations. Chaque intitulé de classe est un objet ou une relation sémantique. Des classes indicées peuvent être également définies, les indices étant eux-mêmes des objets ou des relations sémantiques. Ce dispositif d'indexation des classes est d'une importance majeure pour permettre la définition logique de catégories de textes.

3.2. Le passage de la sémantique à la construction d'une surface.

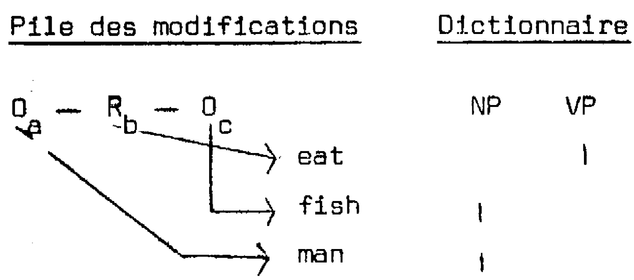
A chaque entrée du dictionnaire, est associé l'indication de toutes les catégories, terminales ou non, de l'algorithme de construction de phrases qui peuvent leur être appliquées. Ainsi, on pourra indiquer pour une racine qu'elle peut servir comme substantif ou comme verbe mais non comme préposition. Ces informations sont contenues dans un vecteur binaire associé à la racine. A chaque racine sont également associées les transformations nécessaires pour leur permettre de fonctionner comme représentant ces catégories. Les variantes d'une même racine apparaissent séparément et leur choix est déterminé par la transformation qui est appliquée à la catégorie grammaticale.

Le système est construit afin d'associer à une liste de triplets sémantiques une structure de surface qui lui corresponde. Cette liste appelée "pile des modifications" est créée par le programme de simulation, et dans le cas des modèles décrits ici, elle correspond aux triplets créés le plus récemment par l'application des règles que le programme met en oeuvre.

Une règle pour la traduction d'un triplet sémantique en langage naturel se compose de deux parties : une dérivation grammaticale et une forme canonique représentant le triplet ou la partie de triplet à traduire. Chaque élément de la forme canonique peut être associé à l'un des symboles de la partie de droite de la dérivation grammaticale. Par exemple :

1) S → NP VP // O R

2) VP → V NP // R O



Le système recherche en premier lieu une règle dont la forme canonique s'applique au triplet complet qui se trouve sur le sommet de la pile des changements. Il faut que les correspondances ainsi établies entre les objets du triplet et les symboles figurant dans la dérivation grammaticale soient compatibles avec les indications figurant par ailleurs dans le dictionnaire. Si une adéquation complète n'est pas possible, on cherche à l'obtenir avec le doublet de gauche, puis avec le doublet de droite du triplet. Ainsi dans l'ensemble, la règle 1 s'applique à la moitié gauche du triplet qui se trouve dans la pile. Quand une règle de production est ainsi sélectionnée, l'unité lexicale associée à l'objet ou à la relation concernée dans le triplet, est aussitôt sélectionnée. Cette méthode diffère des systèmes génératifs usuels qui procèdent à la construction de l'arbre syntaxique complet avant de sélectionner les unités syntaxiques. Ici, les unités lexicales sont choisies dès qu'apparaissent de nouveaux symboles non-terminaux. Les références à ces

unités lexicales associées sont transmises au descendant de ces noeuds non-terminaux et ainsi de suite jusqu'à leur rattachement éventuel à un symbole terminal. Lorsqu'il y a plusieurs triplets dans la pile de modifications, des informations de contrôle peuvent indiquer au programme qu'il convient de poursuivre le processus afin de traduire plusieurs triplets par la même structure de surface. Le travail exécuté par les transformations est divisé en deux niveaux : supérieur et inférieur. Les transformations de niveau supérieur s'appliquent pendant la construction de l'arbre. L'environnement maximal sur lequel elles peuvent opérer consiste en un symbole non-terminal et ses descendants immédiats. Elles permettent d'insérer, de supprimer ou de permuter des symboles. Elles permettent également de le marquer pour l'application ultérieure d'une transformation de niveau inférieur. Ces marques sont transmises aux descendants appropriés et un symbole terminal peut-être associé à plusieurs marques qui sont apparues à des moments différents du processus de production de la phrase.

On peut montrer que ce système est équivalent aux modèles plus traditionnels qui n'appliquent les transformations qu'après construction de l'arbre entier. C'est toutefois un avantage informatique majeur que de pouvoir faire intervenir chaque transformation au moment optimal quand les portions pertinentes de la structure arborescente sont immédiatement disponibles. Les programmes utilisant ces procédures usuelles nécessitent des recherches complexes qui multiplient leur temps d'exécution par un facteur 100 ou 1000 si on le compare aux performances du programme présenté ici. Ceci résulte de ce que les temps de recherche augmentent exponentiellement avec la taille et la complexité des phrases ; alors que dans notre système, le temps de traitement est une fonction linéaire de ce paramètre.

3.3. Dispositifs complexes.

Chaque groupe de règles possède un nom. Il peut être appelé dans les mêmes conditions qu'un sous-programme récursif. Le nom d'un objet ou d'une relation sémantique peut être également le nom d'un groupe de règles. Ainsi, un objet ou une relation peuvent être considérés dans cer-

tains contextes comme des unités sémantiques, dans d'autres comme des sous-programmes à exécuter.

Les règles peuvent être formulées en utilisant les noms de classes. Ainsi, au lieu de définir une règle pour "John Loves Mary", on pourra l'établir pour les phrases du type "Person Affection Person". La même règle peut donc gouverner une grande variété de cas.

Une classe peut contenir des objets qui soient tous des noms de groupes de règles. On peut alors utiliser le contenu ordonné de cette classe d'objets comme une suite ordonnée d'appels à des sous-programmes. Ce dispositif permet d'établir une équivalence entre les objets et les actions d'une même classe. Ceci est particulièrement utile quand on cherche à reproduire des relations sémantiques complexes ou une séquence d'actions et une personne ou un objet peuvent manifester tous deux la même entité sémantique profonde.

Certaines possibilités sont ouvertes par le système qui ne sont pas utilisées ici, mais qui devraient l'être dans la poursuite de notre travail sur Propp.

Parmi celles-ci, il faut citer la capacité qu'a le système de simulation d'"anticiper" sur le développement futur de l'action et de prendre des décisions dans le "présent" en fonction de leurs conséquences attendues. Un exemple de règle de ce type pourrait être : "Si l'événement A est réalisé maintenant, l'événement B se produira-t-il à l'instant T ?". Une autre possibilité ouverte par le système consiste à représenter la signification des règles du langage de simulation lui-même dans la notation du réseau sémantique qui sert à enregistrer le sens du langage naturel. Il est alors possible de consulter les règles de comportement implicites qui gouvernent le modèle au même titre que les autres informations qu'il gère. Ceci rend relativement facile, si l'on a déjà construit des modèles génératifs automatisés, celle de systèmes automatiques d'analyse présuppositionnelle ou d'analyse structurale de contes ou de mythes.

4.0. UN NOUVEAU MODELE POUR CINQ MYTHES EXTRAITS DU "CRU ET LE CUIT".

Dans une version précédente de cette étude (Klein et Al., 1974), un modèle très simple des mythes 1,2,12,124 et 125 a été présenté en guise de pédagogie à la formulation plus complexe du modèle de Propp. A la suite des critiques exprimées par Pierre Maranda dans son commentaire sur la première version, le modèle a été corrigé et amendé pour satisfaire à la plupart des contraintes exprimées. Plus précisément, l'ambiguité concernant le terme "water" a été levée, l'"alligator" a été pris en compte de même que les contrastes entre les mythes 1 et 124 et on a introduit la transformation à double effet, la totalité du schéma de la page 217 du "Cru et le cuit" (1964) est prise en compte, Maranda indiquant qu'il s'agit d'une propriété minimale que le modèle doit satisfaire. Par contre, on n'a pas tenté de prendre en compte celui de la page 202 (1964) comme l'indiquait Maranda. Mais des projets qui vont au-delà de ce problème sont présentés plus loin dans la section 8.

Le programme écrit pour reproduire ces mythes illustre plusieurs dispositifs du système de simulation méta-symbolique. Parmi ceux-ci, on peut noter : la quantification des fonctions en utilisant des classes indicées et l'utilisation des fonctions (ou scénarios exécutables), comme des éléments de telles classes. La combinaison de ces deux dispositifs permet, en utilisant des indices doubles afin de représenter des transformations à double effet (il convient de rappeler à cette occasion que si le modèle de Propp permet de générer un ensemble potentiellement infini de contes, le modèle de Levi-Strauss ne permet de reproduire que les mythes 1,2,12,124 et 125).

Les numéros de mythes sont traités comme des indices de classes. Tous les éléments ayant même valeur d'indice appartiennent au même mythe. Les différentes classes sont données par ordre alphabétique. Les éléments en majuscules correspondent aux noms de groupes de règles dans le schéma représentant le programme. Les classes à double indices, dont le nom est précédé d'une astérisque ("*"), voient leur premier indice déterminé par le numéro de mythe et le second par des événements appartenant à l'intrigue. Cette caractéristique est utilisée en particulier dans la transformation à double effet par le biais de la classe "* modify" qui ne con-

tient que des noms de groupes de règles. Les éléments ADD et SUB de cette classe sont des groupes de règles qui appellent eux-mêmes d'autres classes ("addition" et "substraction"), dont les contenus sont également des noms d'autres groupes de règles.

Les pages qui suivent contiennent la liste des classes par ordre alphabétique puis une présentation schématique du programme. Pour faciliter la lecture, on a reporté à la fin le programme réel et la grammaire permettant le passage de la représentation sémantique au langage naturel. On trouve par contre les textes et la pile des modifications correspondantes à chacun des mythes tels qu'ils sont générés par notre programme, ainsi que l'analyse de la production du texte du mythe 12 dans le terme du schéma de programme. Dans cette précision simplifiée, le mécanisme de production du langage naturel est omis.

Classes (rule names are capitalized, double subscript classes are prefixed by '*')

myth	addition	almostfalls	animal
1	RAIN	SHOT	vulture
2	LAKE	---	---
12	FIRE	---	jaguar
124	SEA	DIVULGE	alligator
125	RAIN	---	---

myth	*animals 1	2	3
1	hummingbird	dove	grasshopper
2	---	---	---
12	vultures	little birds	alligator
124	woodpecker	partridge	monkey
125	---	---	---

myth	assoc	bloodshed	clan	collect
1	---	---	---	gathers
2	disassociated	NOBLOOD	Baitogogo	picking
12	---	---	---	---
124	---	---	---	hunting
125	associated	BLOODY	---	hunting

myth	defiled	defilement	deprivation	deprived
1	---	---	---	---
2	defiled	excrement	mother	son
12	---	---	---	---
124	---	---	---	---
125	stained	blood	food	son

myth	divide	eaten	*element 1	2	3	4
1	---	vulture	water	fire	---	---
2	---	---	water	---	---	---
12	---	---	water	---	---	fire
124	---	---	water	---	---	---
125	hero	---	water	---	---	---

myth	emotion	expedition	fault	findfamily
1	---	palms	flies slowly	hero
2	ashamed	wildfruit	---	---
12	---	---	---	---
124	---	game	is talkative	---
125	angry	tapir	---	---

myth	help	hero	husband	kill
1	OBTAIN	hero	---	---
2	---	Baltogogo	---	KILL1
12	---	hero	Jaguar	---
124	COVER	Asare	---	---
125	---	Bepkororti	---	KILL2

myth	intro	*level 1	2	3	4
1	---	celestial	terrestrial	---	---
2	NEWCHIEF	terrestrial	---	---	---
12	---	terrestrial	---	---	terrestrial
124	STARS	terrestrial	---	---	---
125	SKY	celestial	---	---	---

myth	lie	lizards	liz1	liz2
1	---	FORFOOD	lizard	---
2	---	---	---	---
12	lie	---	---	---
124	---	ALLIGATOR	---	lizard
125	---	---	---	---

myth	*modify 1	2	3	4	music	need
1	ADD	SUB	---	---	---	SOULNEST
2	ADD	---	---	---	INSTRUMENTS	---
12	SUB	WIFE	REVEALS	ADD	---	---
124	ADD	---	---	---	PIGS	HIDE
125	ADD	---	---	---	---	---

myth	*object 1	2	3	observer
1	great dance rattle	small rattle	bells	---
2	---	---	---	son
12	---	---	---	---
124	bark	straw	rind	Asare
125	---	---	---	---

myth	ornament	procurer	pursuit	rapist
1	---	women of tribe	---	hero
2	ADORNMENTS	wife of Baltogogo	---	man from tapir clan
12	---	---	---	---
124	---	father	alligator	brothers
125	WARPAINT	men of tribe	---	---

myth	reason	relation	revenge	revenge2
1	ALERT	father	HELPERS	FATHER
2	---	---	KILLSWIFE	---
12	---	brother-in-law	---	---
124	REFUSE	---	THRASH	---
125	---	---	---	---

myth	speed	subtraction	tapir	used
1	---	FIREOUT	---	heard
2	slowly	---	man from tapir clan	---
12	---	CREEK	---	---
124	---	---	---	eaten
125	quickly	---	tapir	---

myth	vertical	victim	*wanderer 1	2
1	BIRDNESTING	mother	hero	---
2	TREE	wife	Baltogogo	---
12	BIRDNESTING	---	hero	jaguar
124	FALCONS	mother	Asare	brothers
125	MOUNTAIN	---	---	---

myth	want
1	hungry
2	---
12	thirsty
124	---
125	---

Basic Order of Rule Groups Called by Master Control Group

(other rules are called, in turn by these)

1. CLAN
2. GATHER
3. RAPE
4. OBSERVE
5. DISCOVERY
6. REVENGE
7. CRIME
8. BLOOD
9. DIVIDE
10. DEPRIVE
11. VERTICAL
12. DEFILE
13. WANT
14. LIZ1
15. EATEN
16. DOWN
17. REAR
18. HORIZONTAL
19. LIZ2
20. FINDFAMILY
21. MODIFY
22. PURSUIT
23. REVENGE2
24. INTRO

Version schématique du programme.

Pour en faciliter la lecture, on associe à chaque règle ou groupe de règles les numéros des mythes pour lesquels elles sont pertinentes. Ces informations sont ignorées lors du traitement. Les groupes sont donnés dans l'ordre alphabétique.

```
GROUP ADD:   CALL ADDITION(M)
1,2,12,      LEVEL(M) ELEMENT (M,K) IS CREATED
124,125

GROUP ADORNMENT:  THEY BRING ORNAMENTS FOR FUNERAL RITES
2

GROUP ALERT:  IT WOULD ALERT SOULS
1             ANIMALS(M,K) DROPS OBJECT(M,K) INTO WATER WITH LOUD NOISE
              SOULS ARE ALERTED
              SOULS SHOOT ARROWS AT ANIMALS(M,K)

GROUP ALLIGATOR:  ANIMAL(M) DEVELOPS FROM LIZARDS
124

GROUP BIRDNESTING:  RELATION(M) FORCES HERO(M) CLIMB POLE TO CAPTURE MACAWS
1,12                HERO(M) SAYS NEST IS EMPTY
                      IF LIE(M) IS NOT NULL
                    RELATION(M) REMOVES POLE
                    HERO(M) STRANDED

GROUP BLOOD:  CALL BLOODSHED(M)
2,125           IF BLOODSHED(M) IS NOT NULL

GROUP BLOODY:  HERO(M) DISMEMBERS TAPIR(M)
125

GROUP CLAN:  VILLAGE CHIEFS BELONGED TO TUGARE MOIETY IN OLDEN TIMES
2            BAITOGOGO IS CHIEF
               IF CLAN(M) NOT NULL

GROUP COVER:  ANIMAL(M,K) COVERS HERO(M) WITH OBJECT(M,K)
124

GROUP CREEK:  FOR J = 1,2,3
12            [HERO(M) AND ANIMAL(M) COME TO A CREEK
              [HERO(M) WANTS TO DRINK
              [HERO(M) CANNOT DRINK BECAUSE ELEMENT(M,K) BELONGS TO ANIMALS(M,J)
              HERO(M) DRINKS ELEMENT(M,K) AND DRAINS CREEK

GROUP CRIME:  HERO(M) KILLS TAPIR(M) SPEED(M)
2,125           IF TAPIR(M) IS NOT NULL

GROUP DEFILE: [HERO(M) IS DEFILED (M) WITH DEFILEMENT(M)
2,125         [HERO(M) IS EMOTION(M)
                IF DEFILED(M) IS NOT NULL
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GROUP DEPRIVE:  DEPRIVED(M) IS DEPRIVED OF DEPRIVATION(M)
2,125             IF DEPRIVED(M) IS NOT NULL

GROUP DISCOVERY:  OBSERVER(M) TELLS FATHER OF RAPE
1,2,124             IF OBSERVER(M) IS NOT NULL
                  FATHER DISCOVERS RAPE
                    IF OBSERVER(M) IS NULL AND RAPIST(M) IS NOT NULL

GROUP DIVIDE: [OTHER MEN DIVIDE FLESH
125           [HERO(M) IS GIVEN ONLY TWO PAWS
              [HIS WIFE SHAVES HIS HEAD AND PAINTS HIM WITH GENIPA JUICE
                IF DIVIDE(M) IS NOT NULL

GROUP DIVULGE:  A MONKEY ALMOST DIVULGES SECRET
124             ANOTHER MONKEY STRIKES IT ON LIPS

GROUP DOWN: ANIMAL(M) HELPS  HERO(M) DOWN
1,12          IF VERTICAL(M) EQUALS BIRDNESTING

GROUP EATEN: [ANIMAL(M) EATS REST OF LIZARDS
1            [ANIMAL(M) EATS HINDQUARTERS OF HERO(M)
             [SATIATED ANIMAL(M) WILLING TO HELP HERO(M)
                IF EATEN(M) IS NOT NULL

GROUP FALCONS:  BROTHERS SET FIRE TO HOUSE OF PARENTS
124             PARENTS BECOME FALCONS TO ESCAPE

GROUP FATHER:  HERO(M) GETS REVENGE ON FATHER AND FATHER'S WIVES
1

GROUP FINDFAMILY: [HERO(M) LOOKS FOR FAMILY
1                 [HERO(M) FINDS FAMILY
                  [HERO(M) APPEARS AS LIZARD
                  [CALL REVEALS
                     IF FINDFAMILY(M) IS NOT NULL

GROUP FIRE:  PEOPLE CAPTURE FIRE FROM ANIMAL(M)
12

GROUP FIREOUT:  STORM PUTS OUT ALL FIRE EXCEPT THAT OF GRANDMOTHER
1

GROUP FORFOOD:  HERO(M) EATS SOME OF LIZARDS
1               REST OF LIZARDS ROT

GROUP GATHER:  PROCURER(M) COLLECT(M) EXPEDITION(M)
1,2,124,125      IF PROCURER(M) IS NOT NULL

GROUP HELPERS:  FOR K = 1,2,3
1,124            [CALL NEED(M)
                 [HERO(M) ASKS ANIMALS(M,K) FOR HELP
                 [CALL HELP(M)
                 [OBJECT(M,K) SHOULD NOT BE USED(M) BECAUSE
                 [  CALL REASON(M)
                  ANIMALS(M,3) FAULT(M)
                  CALL ALMOSTFAILS(M)
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GROUP HIDE:  HERO(M) MUST HIDE FROM ANIMAL(M)
124

GROUP HORIZONTAL:  FOR K = 1,2
1,2,12,124            WANDERER(M,K) WANDERS THROUGH COUNTRY
                        IF WANDERER(M,K) IS NOT NULL

GROUP INSTRUMENT:  BAITOGOGO AND OTHER CHIEF RETURN TO VILLAGE WITH OTHER HEROS
2                  THEY BRING MUSICAL INSTRUMENTS

GROUP INTRO:  CALL INTRO(M)
2,124,125       IF INTRO(M) IS NOT NULL

GROUP KILL1:  NEW CHIEF ASKS FOR ORNAMENTS
2             NEW CHIEF KILLS HEROS WHO ONLY GAVE HIM A FEW

GROUP KILL2:  BERKOROROTI CAUSES THUNDERBOLT TO FALL
125           MANY PEOPLE ARE KILLED

GROUP KILLSWIFE:  BAITOGOGO STRANGLES HIS WIFE
12

GROUP LAKE:  LAKE APPEARS WHENEVER BAITOGOGO STOPS WALKING
2            TREE ON SHOULDER OF BAITOGOGO SHRINKS

GROUP LIZARD:  HERO(M) KILLS SOME LIZARDS
1,124          CALL LIZARDS(M)

GROUP LIZ1:  CALL LIZARD
1              IF LIZ1(M) IS NOT NULL

GROUP LIZ2:  CALL LIZARD
124            IF LIZ2(M) IS NOT NULL

GROUP MODIFY:  FOR K = 1,2,3,4
1,2,12,          CALL MODIFY(M,K)
124,125            IF MODIFY(M,K) IS NOT NULL

GROUP MOUNTAIN:  BERKORORОТI AND HIS SON ASCEND MOUNTAIN
125              BERKORORОТI SMEARS CLUB WITH BLOOD

GROUP NEWCHIEF:  BAITOGOGO AND OTHER CHIEF LEAVE VILLAGE
2                NEW CHIEF BELONGS TO CERA MOIETY
                 CALL ORNAMENTS

GROUP NOBLOOD:  WIFE OF BAITOGOGO IS KILLED WITHOUT BLOODSHED
2

GROUP OBSERVE:  OBSERVER(M) OBSERVES RAPE
2,124             IF OBSERVER(M) IS NOT NULL

GROUP OBTAIN:  ANIMALS(M,K) OBTAINS OBJECT(M,K) FOR HERO(M)
1
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GROUP ORNAMENTS:  HERO(M) AND HIS SON ARE ASSOC(M)
2,125             CALL MUSIC(M)
                  CALL ORNAMENT(M)
                  CALL KILL(M)
                  POPULATION IS SCATTERED

GROUP PIGS:  HERO(M) SHOUTS LIKE WILD PIGS
125

GROUP PURSUIT: [HERO(M) SWIMS IN SEA
124            [ANIMAL(M) CHASES HERO(M) FROM WATER
               [CALL HELPERS
               [HERO(M) ASKS SKUNK WHO IS HIS UNCLE FOR HELP
               [SKUNK KILLS ANIMAL(M) WITH STENCH
                  IF PURSUIT(M) IS NOT NULL

GROUP RAIN:  THERE IS THUNDERSTORM
1,125

GROUP RAPE:  RAPIST(M) RAPES VICTIM(M)
1,2,124         IF RAPIST(M) IS NOT NULL

GROUP REAR: [HERO(M) HAS NO HINDQUARTERS
1           [HERO(M) MAKES HINDQUARTERS WITH DOUGH
               IF EATEN(M) IS NOT NULL

GROUP REFUSE:  IT IS FOOD REFUSE
124

GROUP REVEALS:  HERO(M) REVEALS HIMSELF TO HIS FAMILY
1,12

GROUP REVENGE:  CALL REVENGE(M)
1,2,124            IF REVENGE(M) IS NOT NULL

GROUP REVENGE2:  CALL REVENGE2(M)
1                   IF REVENGE2(M) IS NOT NULL

GROUP SEA:  ASARE IS THIRSTY
124         BROTHERS DIG WELL
            ASARE CANNOT DRINK ALL OF WATER
            WELL PRODUCES SEA

GROUP SHOT:  ANIMALS(M,3) IS HIT BY ARROWS
1            ANIMALS(M,3) IS NOT KILLED

GROUP SKY:  CALL ORNAMENTS
125         HERO(M) AND HIS SON GO INTO SKY

GROUP SOULNEST:  FATHER SENDS HERO(M) TO NEST OF SOULS FOR OBJECT(M,K)
1                HERO(M) ASKS HIS GRANDMOTHER TO HELP
                 HIS GRANDMOTHER ADVISES HIM TO ASK ANIMALS(M,K)
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GROUP STARS:  BROTHERS BATHE IN SEA
124           THEY BATHE TODAY DURING RAINY SEASON
              THEY APPEAR IN SKY AS PLEIADES WHEN CLEAN

GROUP SUB:  CALL SUBTRACTION(M)
1,12        LEVEL(M,K) ELEMENT(M,K) IS DESTROYED

GROUP THRASH:  FATHER THRASHES BROTHERS
124

GROUP TREE:  SON BECOMES BIRD
2            BIRD SEARCHES FOR MOTHER
             BIRD DROPS EXCREMENT ON BAITOGOGO
             EXCREMENT BECOMES TREE

GROUP VERTICAL:  CALL VERTICAL(M)
1,2,12,124,125

GROUP WANT:  HERO(M) IS WANT(M)
1,12             IF WANT(M) IS NOT NULL

GROUP WARPAINT:  WARPAINT AND WARCRYS ARE INTRODUCED
125

GROUP WIFE:  WIFE OF HUSBAND(M) IS UNFRIENDLY
12           HERO(M) KILLS WIFE OF HUSBAND(M)
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THE WOMEN OF THE TRIBE WERE GATHERING PALMS.
THE HERO RAPED HIS MOTHER.
THE FATHER DISCOVERED THE RAPE.
THE FATHER SENT THE HERO TO THE NEST OF SOULS FOR THE GREAT DANCE RATTLE.
THE HERO ASKED HIS GRANDMOTHER TO HELP.
HIS GRANDMOTHER ADVISED THE HERO TO ASK THE HUMMINGBIRD.
THE HERO ASKED THE HUMMINGBIRD FOR HELP.
THE HUMMINGBIRD OBTAINED THE GREAT DANCE RATTLE FOR THE HERO.
THE GREAT DANCE RATTLE SHOULD NOT BE HEARD BECAUSE IT WOULD ALERT THE SOULS.
THE HUMMINGBIRD DROPPED THE GREAT DANCE RATTLE INTO THE WATER WITH A LOUD NOISE.
THE SOULS WERE ALERTED.
THE SOULS SHOT ARROWS AT THE HUMMINGBIRD.
THE FATHER SENT THE HERO TO THE NEST OF SOULS FOR THE SMALL RATTLE.
THE HERO ASKED HIS GRANDMOTHER TO HELP.
HIS GRANDMOTHER ADVISED THE HERO TO ASK THE DOVE.
THE HERO ASKED THE DOVE FOR HELP.
THE DOVE OBTAINED THE SMALL RATTLE FOR THE HERO.
THE SMALL RATTLE SHOULD NOT BE HEARD BECAUSE IT WOULD ALERT THE SOULS.
THE DOVE DROPPED THE SMALL RATTLE INTO THE WATER WITH A LOUD NOISE.
THE SOULS WERE ALERTED.
THE SOULS SHOT ARROWS AT THE DOVE.
THE FATHER SENT THE HERO TO THE NEST OF SOULS FOR THE BELLS.
THE HERO ASKED HIS GRANDMOTHER TO HELP.
HIS GRANDMOTHER ADVISED THE HERO TO ASK THE GRASSHOPPER.
THE HERO ASKED THE GRASSHOPPER FOR HELP.
THE GRASSHOPPER OBTAINED THE BELLS FOR THE HERO.
THE BELLS SHOULD NOT BE HEARD BECAUSE IT WOULD ALERT THE SOULS.
THE GRASSHOPPER DROPPED THE BELLS INTO THE WATER WITH A LOUD NOISE.
THE SOULS WERE ALERTED.
THE SOULS SHOT ARROWS AT THE GRASSHOPPER.
THE GRASSHOPPER FLEW SLOWLY.
THE GRASSHOPPER WAS HIT BY ARROWS.
THE GRASSHOPPER WAS NOT KILLED.

THE FATHER FORCED THE HERO TO CLIMB A POLE TO CAPTURE MACAWS.
THE FATHER REMOVED THE POLE.
THE HERO WAS STRANDED.
THE HERO WAS HUNGRY.

THE HERO KILLED SOME LIZARDS.
THE HERO ATE SOME OF THE LIZARDS.
THE REST OF THE LIZARDS RØTTED.
THE VULTURES ATE THE REST OF THE LIZARDS.
THE VULTURES ATE THE HINDQUARTERS OF THE HERO.
THE SATIATED VULTURES WERE WILLING TO HELP THE HERO.
THE VULTURES HELPED THE HERO DOWN.
THE HERO HAD NO HINDQUARTERS.
THE HERO MADE MORE HINDQUARTERS WITH DOUGH.
THE HERO WANDERED THROUGH THE COUNTRY.
THE HERO LOOKED FOR HIS FAMILY.
THE HERO FOUND HIS FAMILY.
THE HERO APPEARED AS A LIZARD.
THE HERO REVEALED HIMSELF TO HIS FAMILY.
THERE WAS A THUNDERSTORM.
CELESTIAL WATER WAS CREATED.
THE STORM PUT OUT ALL FIRE EXCEPT THAT OF THE GRANDMOTHER.
TERRESTRIAL FIRE WAS DESTROYED.
THE HERO GOT REVENGE ON HIS FATHER AND THE WIVES OF THE FATHER.

MYTH 1

VILLAGE CHIEFS BELONGED TO THE TUGARE MOIETY IN OLDEN TIMES.
BAITOGOGO WAS A CHIEF.
THE WIFE OF BAITOGOGO WAS PICKING WILD FRUIT.
A MAN FROM THE TAPIR CLAN RAPED THE WIFE OF BAITOGOGO.
A SON OBSERVED THE RAPE.
THE SON TOLD THE FATHER OF THE RAPE.
BAITOGOGO STRANGLED HIS WIFE.

BAITOGOGO KILLED THE MAN FROM THE TAPIR CLAN SLOWLY.
THE WIFE OF BAITOGOGO WAS KILLED WITHOUT BLOODSHED.
THE SON WAS DEPRIVED OF HIS MOTHER.
THE SON BECAME A BIRD.
THE BIRD SEARCHED FOR THE MOTHER.
THE BIRD DROPPED EXCREMENT ON BAITOGOGO.
THE EXCREMENT BECAME A TREE.
BAITOGOGO WAS DEFILED WITH THE EXCREMENT.
BAITOGOGO WAS ASHAMED.

BAITOGOGO WANDERED THROUGH THE COUNTRY.
A LAKE APPEARED WHENEVER BAITOGOGO STOPPED WALKING.
THE TREE ON THE SHOULDER OF BAITOGOGO SHRANK.
TERRESTRIAL WATER WAS CREATED.
BAITOGOGO AND THE OTHER CHIEF LEFT THE VILLAGE.
THE NEW CHIEF BELONGED TO THE CERA MOIETY.
BAITOGOGO AND HIS SON WERE DISASSOCIATED.
BAITOGOGO AND THE OTHER CHIEF RETURNED TO THE VILLAGE WITH SOME OTHER HEROES.
THEY BROUGHT MUSICAL INSTRUMENTS.
THEY BROUGHT ORNAMENTS FOR THE FUNERAL RITES.
THE NEW CHIEF ASKED FOR ORNAMENTS.
THE NEW CHIEF KILLED THE HEROES WHO ONLY GAVE HIM A FEW.
THE POPULATION WAS SCATTERED.

MYTH 2

ANALYSE DE LA PRODUCTION DU MYTHE 12

Le premier groupe de règles appelé est CLAN, qui est le premier dans la séquence primitive des groupes. L'entrée pour la classe CLAN (12) ne contenant rien, ce groupe n'est pas exécuté. Il en est de même pour les neufs groupes suivants (GATHER, RAPE, OBSERVE, DISCOVERY, REVENGE, CRIME, BLOOD, DIVIDE et DEPRIVE). Le groupe suivant, VERTICAL, appelle vertical (m). Vertical (12) étant BIRDNESTING, BIRDNESTING est le premier groupe a être exécuté. Ce groupe introduit plusieurs phrases. La première provient de :

. RELATION (M) FORCES HERO (M) CLIMB POLE TO CAPTURE MACAWS

Relation (12) = "brother in law"

héro (12) = "héro"

Ce groupe conduit à la production (après passage dans le mécanisme de génération du langage naturel) de la phrase :

"The brother-in-law forced the hero to climb the pole to capture the macaws", qui constitue le début du mythe 12 reconstitué. Puisque lie (12) = "lie", la partie suivante est exécutée. Elle conduit à la phrase "The hero said that the nest was empty". Les deux phrases suivantes sont "The brother-in-law removed the pole", "The hero was stranded".

BIRDNESTING étant terminé, le contrôle revient au groupe suivant dans la séquence primitive des groupes. C'est DEFILE qui est ignoré, puisque DEFILE (12) est vide. Le groupe suivant est WANT. Puisque WANT(12) = "thirsty" ; la phrase produite est "the hero was thirsty". L121 et EATEN les deux groupes suivants sont sautés. Le groupe suivant DOWN est exécuté puisque Vertical (12) = BIRDNESTING et comme Animal (12) = "jaguar", DAWN produit "A jaguar helped the hero down".

Le groupe suivant de la séquence primitive REAR est sauté. La règle suivante HORIZONTAL est exécutée. Elle donne à l'indice k la valeur 1 et teste si wanderer (m,k) est vide. Puisque Wanderer (12,1) = "hero", la phrase "the hero wandered through the country" est produite. k est alors positionné à 2. Wanderer (12,2) étant égal à 2, la phrase suivante est : "The jaguar wandered through the country".

Les groupes suivants L122 et FINDFAMILY sont omis.

Dans MODIFY, k est d'abord mis à 1 et Modify (m,k) est appelé Modify (12,1) = SUB. Le groupe SUB appelle substraction (m). Substraction (12) est CREEK. Dans ce groupe, un autre indice j voit sa valeur fixée à 1. Deux phrases sont alors produites : "The hero and the jaguar came to a creek. The hero wanted a drink".

Puisque m = 12, k = 1, j = 1
element (m,k) = element (12,1) = "Water"
animals (m,j) = animals (12,1) = "Vultures".

C'est pourquoi la phrase suivante est :

"The hero could not drink because the water belonged to the vultures".

CREEK positionne alors j à 2 et comme animals (12,2) = "Little birds" produit : "The hero and the jaguar came to a creek. The hero wanted to drink. The hero could not drink because the water belonged to little birds". Puis j prend la valeur 3 et on trouve : "The hero and the jaguar came to a creek. The hero wanted to drink. The hero could not drink because the water belonged to an alligator. Enfin, CREEK conclut "The hero drank the water and drained the creek".

Le groupe CREEK est ainsi terminé mais non le groupe SUB. Celui-ci produit "terrestrial water was destroyed" ce qui conclut SUB et renvoie à MODIFY qui n'est pas terminé. MODIFY positionne maintenant k à 2 et appelle Modify (12,2) qui est WIFE ; Puisque husband (12) = "jaguar", WIFE produit : "The wife of the jaguar was unfriendly. The hero killed the wife of the jaguar". De retour dans MODIFY,k prend la valeur 3. Modify (12,3) = REVEALS qui est donc exécuté ; il génère : "The hero revealed himself to his family". Puis MODIFY donne à k la valeur 4. Modify (12,4) = ADD est appelé. ADD appelle addition (12) = FIRE. FIRE engendre "The people captured fire from the jaguar". De retour dans ADD, la phrase : "Terrestrial fire was created" est ajoutée. Ce qui termine ADD et MODIFY. Tous les autres groupes sont sautés ce qui termine la production du mythe.

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CHANGE STACK FOR TIME  2H
CHANGE STACK FOR TIME  2H1M
   1:        (BROTHERI MAKES HERO)   SET AT 2H1M
   2:        (MAKES CAPTURE MACAWS)   SET AT 2H1M
   3:        (MAKES CLIMB POLE)   SET AT 2H1M
   4:        (HERO SAYS THAT)   SET AT 2H1M
   5:        (NEST EMPTY)   SET AT 2H1M
   6:        (BROTHERI REMOVES POLE)   SET AT 2H1M
   7:        (HERO STRANDED)   SET AT 2H1M
   8:        (HERO THIRSTY)   SET AT 2H1M


CHANGE STACK FOR TIME  2H2M
   1:        (JAGUAR HELPS HERO)   SET AT 2H2M
   2:        (HELPS DOWN)   SET AT 2H2M
   3:        (HERO WANDER)   SET AT 2H2M
   4:        (WANDER THROUGH COUNTRY)   SET AT 2H2M
   5:        (JAGUAR WANDER)   SET AT 2H2M
   6:        (WANDER THROUGH COUNTRY)   SET AT 2H2M
   7:        (HERO RAND JAGUAR)   SET AT 2H2M
   8:        (JAGUAR COMETO CREEK)   SET AT 2H2M
   9:        (HERO WANTS)   SET AT 2H2M
  10:        (WANTS RNULL NDRINK)   SET AT 2H2M
  11:        (HERO DRINK PREASON)   SET AT 2H2M
  12:        (WATER1 BELONGST VULTURE)   SET AT 2H2M
  13:        (DRINK CANNOT)   SET AT 2H2M
  14:        (HERO RAND JAGUAR)   SET AT 2H2M
  15:        (JAGUAR COMETO CREEK)   SET AT 2H2M
  16:        (HERO WANTS)   SET AT 2H2M
  17:        (WANTS RNULL NDRINK)   SET AT 2H2M
  18:        (HERO DRINK PREASON)   SET AT 2H2M
  19:        (WATER1 BELONGST LITTLEBI)   SET AT 2H2M
  20:        (DRINK CANNOT)   SET AT 2H2M
  21:        (HERO RAND JAGUAR)   SET AT 2H2M
  22:        (JAGUAR COMETO CREEK)   SET AT 2H2M
  23:        (HERO WANTS)   SET AT 2H2M
  24:        (WANTS RNULL NDRINK)   SET AT 2H2M
  25:        (HERO DRINK PREASON)   SET AT 2H2M
  26:        (WATER1 BELONGST ALLIGATO)   SET AT 2H2M
  27:        (DRINK CANNOT)   SET AT 2H2M
  28:        (HERO DRINK WATER1)   SET AT 2H2M
  29:        (DRINK RAND1)   SET AT 2H2M
  30:        (RAND1 DRAIN)   SET AT 2H2M
  31:        (DRAIN RNULL CREEK1)   SET AT 2H2M
  32:        (CREEK OF ALLIGATO)   SET AT 2H2M
  33:        (WATER1 DESTROYE)   SET AT 2H2M
  34:        (WATER1 TERRESTI)   SET AT 2H2M
  35:        (WIFE UNFRIEND)   SET AT 2H2M
  36:        (WIFE OF JAGUAR)   SET AT 2H2M
  37:        (HERO KILL WIFE)   SET AT 2H2M
  38:        (WIFE OF JAGUAR)   SET AT 2H2M
  39:        (HERO REVEALS HIMSELF)   SET AT 2H2M
  40:        (REVEALS TO FAMILY)   SET AT 2H2M
  41:        (FAMILY HIS)   SET AT 2H2M
  42:        (PEOPLE CAPTURES FIRE)   SET AT 2H2M
  43:        (CAPTURES FROM JAGUAR)   SET AT 2H2M
  44:        (FIRE CREATED)   SET AT 2H2M
  45:        (FIRE TERRESTI)   SET AT 2H2M
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THE BROTHER IN LAW FORCED THE HERO TO CLIMB THE POLE TO CAPTURE THE MACAWS.
THE HERO SAID THAT THE NEST WAS EMPTY.
THE BROTHER IN LAW REMOVED THE POLE.
THE HERO WAS STRANDED.
THE HERO WAS THIRSTY.

A JAGUAR HELPED THE HERO DOWN.
THE HERO WANDERED THROUGH THE COUNTRY.
THE JAGUAR WANDERED THROUGH THE COUNTRY.
THE HERO AND THE JAGUAR CAME TO A CREEK.
THE HERO WANTED A DRINK.
THE HERO COULD NOT DRINK BECAUSE THE WATER BELONGED TO THE VULTURES.
THE HERO AND THE JAGUAR CAME TO A CREEK.
THE HERO WANTED A DRINK.
THE HERO COULD NOT DRINK BECAUSE THE WATER BELONGED TO LITTLE BIRDS.
THE HERO AND THE JAGUAR CAME TO A CREEK.
THE HERO WANTED A DRINK.
THE HERO COULD NOT DRINK BECAUSE THE WATER BELONGED TO AN ALLIGATOR.
THE HERO DRANK THE WATER AND DRAINED THE CREEK.
TERRESTRIAL WATER WAS DESTROYED.
THE WIFE OF THE JAGUAR WAS UNFRIENDLY.
THE HERO KILLED THE WIFE OF THE JAGUAR.
THE HERO REVEALED HIMSELF TO HIS FAMILY.
THE PEOPLE CAPTURED FIRE FROM THE JAGUAR.
TERRESTRIAL FIRE WAS CREATED.

MYTH 12

THE FATHER WAS HUNTING GAME.
THE BROTHERS RAPED THE MOTHER OF THE HERO.
ASARE OBSERVED THE RAPE.
ASARE TOLD THE FATHER OF THE RAPE.
THE FATHER THRASHED THE BROTHERS.

THE BROTHERS SET FIRE TO THE HOUSE OF THE PARENTS.
THE PARENTS BECAME FALCONS TO ESCAPE.

ASARE WANDERED THROUGH THE COUNTRY.
THE BROTHERS WANDERED THROUGH THE COUNTRY.
ASARE KILLED SOME LIZARDS.
AN ALLIGATOR DEVELOPED FROM THE LIZARDS.
ASARE WAS THIRSTY.
THE BROTHERS DUG A WELL.
ASARE COULD NOT DRINK ALL OF THE WATER.
THE WELL PRODUCED A SEA.
TERRESTRIAL WATER WAS CREATED.
ASARE SWAM IN THE SEA.
THE ALLIGATOR CHASED ASARE FROM THE WATER.
ASARE HAD TO HIDE FROM THE ALLIGATOR.
ASARE ASKED THE WOODPECKERS FOR HELP.
THE WOODPECKERS COVERED ASARE WITH BARK.
BARK SHOULD NOT BE EATEN BECAUSE IT WAS FOOD REFUSE.
ASARE HAD TO HIDE FROM THE ALLIGATOR.
ASARE ASKED THE PARTRIDGES FOR HELP.
THE PARTRIDGES COVERED ASARE WITH STRAW.
STRAW SHOULD NOT BE EATEN BECAUSE IT WAS FOOD REFUSE.
ASARE HAD TO HIDE FROM THE ALLIGATOR.
ASARE ASKED THE MONKEYS FOR HELP.
THE MONKEYS COVERED ASARE WITH RIND.
RIND SHOULD NOT BE EATEN BECAUSE IT WAS FOOD REFUSE.
THE MONKEYS WERE TALKATIVE.
ONE MONKEY ALMOST DIVULGED THE SECRET.
ANOTHER MONKEY STRUCK IT ON THE LIPS.
ASARE ASKED THE SKUNK WHO WAS HIS UNCLE FOR HELP.
THE SKUNK KILLED THE ALLIGATOR WITH HIS STENCH.
THE BROTHERS BATHED IN THE SEA.
THEY BATHE TODAY DURING THE RAINY SEASON.
THEY APPEAR IN THE SKY AS THE PLEIADES WHEN CLEAN.

MYTH 124

THE MEN OF THE TRIBE WERE HUNTING A TAPIR.

BEPKORORОТI KILLED THE TAPIR QUICKLY.
BEPKORОROTI DISMEMBERED THE TAPIR.
THE OTHER MEN DIVIDED THE FLESH.
BEPKORОROTI WAS ONLY GIVEN TWO PAWS.
HIS WIFE SHAVED HIS HEAD AND PAINTED HIM WITH GENIPAJUICE.
HIS SON WAS DEPRIVED OF FOOD.
BEPKORОROTI AND HIS SON ASCENDED THE MOUNTAIN.
BEPKORОROTI SMEARED A CLUB WITH BLOOD OF THE TAPIR.
BEPKORОROTI WAS STAINED WITH BLOOD.
BEPKORОROTI WAS ANGRY.

THERE WAS A THUNDERSTORM.
CELESTIAL WATER WAS CREATED.
BEPKORОROTI AND HIS SON WERE ASSOCIATED.
BEPKORОROTI SHOUTED LIKE WILD PIGS.
WARPAINT AND WARCRIES WERE INTRODUCED.
BEPKORОROTI CAUSED A THUNDERBOLT TO FALL.
MANY PEOPLE WERE KILLED.
THE POPULATION WAS SCATTERED.
BEPKORОROTI AND HIS SON WENT INTO THE SKY.

MYTH 125

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*
$       |THIS PROGRAM MAPS TIME AND MYTH SO THAT THE MYTHS
*       |WILL BE GENERATED IN DISTINCT TIME FRAMES
*       |IE MYTH 1 AT TIME 0 ,MYTH 2 AT TIME 1,ETC.
*
*
*               NODES
*
*
$NODES;
*
THAT 0= 'THAT';
MX 0 = ;
LST 0 = ;
ULST 0 = ;
*
*         INDEXES
*
I1 0=;
I2 0 = ;
I3 0=;
*
*         MYTH INDENTIFIER/INDEXES
*
M1 0=;
M2 0 = ;
M12 0 =;
M124 0=;
M125 0=;
*
*         SEMANTIC NODES
*
ADD 0=;
ADORNMENTS 0=;
ALERT 0=;
ALL 0='ALL';
ALLIGGATOR 0='ALLIGATOR';
ARROWS 5='ARROW';
ASARE 0='ASARE';
BAITOGOGO 0='BAITOGOGO';
BARK 0 = 'BARK';
BEPKOROROTI 0='BEPKOROROTI';
BIRD 0='BIRD';
BIRDNESTING 0=;
BIRDS 1='BIRD';
BLOODSH 0='BLOODSHED';
BLOODY 0=;
BROTHERINLAW 2='BROTHER IN LAW';
BROTHERS 3='BROTHER';
CERAMOIETY 2='CERA MOIETY';
CHIEF 0='CHIEF';
CHIEFS 5='CHIEF';
CLUB  0='CLUB';
COUNTRY 2='COUNTRY';
COVER 0=;
CREEK 4='CREEK';
CREEK1 2='CREEK';
DIVULGE 0=;
DOUGH 0='DOUGH';
EXCREMENT 1='EXCREMENT';
.
.
.
POPULATION 2='POPULATION';
PREASON 0=;
RAIN 2 = 'RAIN';
REFUSE 0='REFUSE';
REST 2='REST';
RITES 3='RITE';
SEA 2='SEA';
SEASON 2='SEASON';
SECRET 2='SECRET';
SHOULDER 2='SHOULDER';
SKUNK 2='SKUNK';
SKY 2='SKY';
SMALLRATTLE 2='SMALL RATTLE';
SOME 0='SOME';
SON 0='SON';
SON1 0=;
SOULNEST 0=;
SOULS 3='SOUL';
SOULS1 5='SOUL';
STARS 0=;
STENCH 0='STENCH';
STORM 2='STORM';
STRAW 0='STRAW';
SUB 0=;
TAPIR 0 ='TAPIR';
TAPIRCLAN 2='TAPIR CLAN';
THAT2 0='THAT';
THERE 0='THERE';
THEY 5='THEY';
THRASH 0=;
THUNDERBOLT 0='THUNDERBOLT';
THUNDERSTORM 4='THUNDERSTORM';
TIMES 1='TIME';
TREE 0='TREE';
TRIBE 2='TRIBE';
TUGAREMOIETY 2='TUGARE MOIETY';
UNCLE 2='UNCLE';
VULTURE 3='VULTURE';
WARCRYS 5='WARCRY';
WARPAINT 0='WARPAINT';
WATER 0='WATER';
WATER1 2='*1WATER';
WELL 0='WELL';
WIFE 2='WIFE';
WIFEOFBAITOGOGO 2=;
WILDFRUIT 1 ='WILD FRUIT';
WIVES 3='WIFE';
WOMEN 3='WOMAN';
WOMENOFTRIBE 3=;
WOODPECKER 3='WOODPECKER';
*
*
*
GWIFE 0=;
GREVEALS 0=;
ADDL 0=;
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.
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```
FALCONS 1='FALCON';
FAMILY 0='FAMILY';
FATHER 2='FATHER';
FEW 0='FEW';
FIRE 0='FIRE';
FIREOUT 0=(FIRE OUT);
FIRE1 1='FIRE';
FLESH 2='FLESH';
FOOD 1='FOOD';
FORFOOD 0 =;
GAME 1= 'GAME';
GENIPAJUICE 0='GENIPAJUICE';
GRANDMOTHER 2='GRANDMOTHER';
GREATDANCERATTLE 2='GREAT DANCE R
GSHOT 0=;
HEAD 0 = 'HEAD';
HELPERS 1 =;
HELPN  0 ='HELP';
HERO 2 = 'HERO';
HEROES 3 = 'HERO';
HIDE 0 = 'HIDE';
HIM 0 = 'HIM';
HIMSELF 0 ='HIMSELF';
HINDQUART 3 ='HINDQUARTER';
HOUSE 2 = 'HOUSE';
HUMMINGBIRD 2 = 'HUMMINGBIRD';
INSTRUMENTS 5='INSTRUMENT';
IT 0='IT';
JAGUAR 0='JAGUAR';
KILLSWIFE 0=;
KILL1 0=;
KILL2 0=;
LAKE 0 = 'LAKE';
LIE 0='LIE';
LIPS 3='LIP';
LISARD 4='LIZARD';
LIZARD 1='LIZARD';
MACAWS 1='MACAW';
MAN 0='MAN';
MANFROMTAPIRCLAN 0=;
MEN 3='MAN';
MENOFTRIBE 3=;
MONKEY1 0='MONKEY';
MOTHER 2='MOTHER';
MOTHER1 0=;
MOTHEROFHERO 2=;
MOUNTAIN 2='MOUNTAIN';
NDRINK 4='DRINK';
NESCAPE 0='ESCAPE';
NEST 2='NEST';
NEWCHIEF 0 =;
NHELP 0='HELP';
NOBLOOD 0=;
NOISE 4='NOISE';
NVILLAGE 2='VILLAGE';
OBTAIN 0=;
ORNAMENTS 5='ORNAMENT';
PALMS 1='PALM';
PARENTS 3='PARENT';
PAWS 1='PAW';
.
.
.
MONKEY 3='MONKEY';
BELLS 3='BELL';
ALLIGATOR 0='ALLIGATOR';
RIND 0='RIND';
*
*
*
GCLAN 0=;
GATHER 0=;
RAPE 2='RAPE';
OBSERVE 0=;
DISCOVERY 0=;
REVENGE 0='REVENGE';
CRIME 0=;
BLOOD 0='BLOOD';
DIVIDE 0=;
DEPRIVES 0=;
VERTICAL 0=;
DEFILE 0=;
GWANT 0=;
LIZR1 0=;
GEATEN 0=;
GDOWN 0=;
REAR 0=;
HORIZONTAL 0=;
LIZR2 0=;
GFINDFAMILY 0=;
MODIFICATION 0=;
GPURSUIT 0=;
REVENGE2 0=;
GINTRO 0=;
*
*               RELATIONS
*
$RELATIONS;
XX A 2 0 =;
ADVISES I 3 0 ='ADVISE';
ALERTS I 3 0 ='ALERT';
ALERTED A 2 0 ='ALERT';
ALMOST A 6 1 ='ALMOST';
ANGRY A 2 0 ='ANGRY';
ANOTHER A 2 2 ='ANOTHER';
APPEARS A 3 0='APPEAR';
AS I 4 0 ='AS';
ASCENDS I 3 0 ='ASCEND';
ASHAMED A 2 0='ASHAMED';
ASKFOR I 3 0 =;
ASKS I 3 0 ='ASK';
ASSOCIATED A 2 0 ='ASSOCIATED';
AT I 4 0 ='AT';
BATHES A 3 0='BATHE';
BE A 3 0='BE';
BECOMES I 3 0 ='BECOME';
BELONGSTO I 3 0 =;
BELONGS I 3 0='BELONG';
BRINGS I 3 0 ='BRING';
.
.
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```
BY I 4 0 ='BY';
CANNOT A 6 2='COULD NOT';
CAPTURES I 3 0='CAPTURE';
CAPTURE I 3 0='CAPTURE';
CAUSE I 3 0='CAUSE';
CELESTIAL A 2 0='CELESTIAL';
CHASE I 3 0='CHASE';
CLEAN A 2 0='CLEAN';
CLIMB I 3 0='CLIMB';
COME I.3 0='COME';
COMETO I 3 0=;
COVERS I 3 0='COVER';
CREATED A 2.0='CREATE';
DEPRIVED A 2 0='DEPRIVE';
DEFILES A 2 0='DEFILED';
DEPRIVE I 3  0=;
DESCEND A 3 0='DESCEND';
DESTROYED A 2 0='DESTROY';
DEVELOP A 3 0='DEVELOP';
DIG I 3 0='DIG';
DISASSOCIAT A 2 0='DISASSOCIATED';
DISCOVERS I 3 0='DISCOVER';
DISMEMBERS I 3 0='DISMEMBER';
DIVIDES I 3 0='DIVIDE';
DIVULGES I 3 0='DIVULGE';
DOWN A 6 0='DOWN';
DRAIN A  3 0='DRAIN';
DRINK I 3 0='DRINK';
DROPS I 3 0='DROP';
DURING I 4 0='DURING';
EAT I 3 0='EAT';
EATEN I 2 0 ='EAT';
EMPTY A 2 0 ='EMPTY';
ESCAPE I 3 0 ='ESCAPE';
ESCAPEN A 3 0 ='ESCAPE';
EXCEPT I 4 0='EXCEPT';
FAIL A 3 0='FAIL';
FALL A 3 0 ='FALL';
FINDS I 3 0 ='FIND';
FLIESLOWLY A 3 0=;
FLY I 3 0='FLY';
FOODR A 2 0='FOOD';
FOR I 4 0='FOR';
FOR1 A 4 0='FOR';
FROM I 4 0='FROM';
FUNERAL A 2 0='FUNERAL';
GATHERS I 2 0='GATHER';
GETS I 3 0='GET';
GIVE I 3 2 ='GIVE';
GIVEN I 2 0='GIVE';
GIVES I 3 0='GIVE';
GO I 3 0='GO';
GOINTO I 3 0=;
GOUP I 3 0=;
HAS I 3 0='HAVE';
HEARD I 2 0='HEAR';
HELPS I 3 0='HELP';
HELPSA A 3 0='HELP';
HIDES A 3 0='HIDE';
HIS A 2 2='HIS';
.
.
.
.
SHAVES I 3 0='SHAVE';
SHOOT I 3 0='SHOOT';
SHOT A 2 0='SHOOT';
SHOUTS A 3 0='SHOUT';
SHRINKS A 3 0='SHRINK';
SLOWLY A 6 0='SLOW';
SMEARS I 3 0='SMEAR';
SOME1 A 2 2 ='SOME';
STAINED A 2 0='STAINED';
STOPS A 3 1='STOP';
STRANDED A 2 0='STRAND';
STRANGLES I 3 0='STRANGLE';
STRIKES I 3 0='STRIKE';
SWIMS A 3 0='SWIM';
TELLS I 3 0='TELL';
TERRESTIAL A 2 2='TERRESTRIAL';
THIRSTY A 2 0='THIRSTY';
THRASHES I 3 0='THRASH';
THROUGH I 4 0='THROUGH';
TO I 4 0='TO';
TODAY A 6 4='TODAY';
TWO A 2 2='TWO';
UNFRIENDLY A 2 0='UNFRIENDLY';
UP A 4 0='UP';
VILLAGE A 2 0='VILLAGE';
WALKING A 3 0='WALK';
WANDER A 3 0='WANDER';
WANTS A 3 0='WANT';
WHEN A 4 1='      ';
WHENEVER I 4 0='WHENEVER';
WHERE I 4 0='WHERE';
WHO A 4 0='WHO';
WILD A 2 0='WILD';
WILLING A 2 0='WILLING';
WITH I 4 0='WITH';
WITHOUT I 4 0='WITHOUT';
WOULD A 6 2='WOULD';
$
$
$
```

CLASSES

```
$
SCLASSES;
ADDITION(M1)=RAIN;
ADDITION(M2)=LAKE;
ADDITION(M12)=FIRE;
ADDITION(M124)=SEA;
ADDITION(M125)=RAIN;
ALMOSTFAILS(M1)=GSHOT;
ALMOSTFAILS(M124)=DIVULGE;
ANIMAL(M1)=VULTURE;
ANIMAL(M12)=JAGUAR;
ANIMAL(M124)=ALLIGGATOR;
ANIMALS(M1)=HUMMINGBIRD DOVE GRASSHOPPER;
ANIMALS(M12)=VULTUPE LITTLEBIRDS ALLIGATOR;
ANIMALS(M124)=WOODPECKER PARTRIDGE MONKEY;
2 ASSOC(M2)=DISASSOCIAT;
2 ASSOC(M125)=ASSOCIATED;
BLOODSHED(M2)=NOBLOOD;
BLOODSHED(M125)=BLOODY;
CLAN(M2)=BAITOGOGO;
.
```

```
.
.
HIT A 2 0='HIT';
HUNGRY A 2 0='HUNGRY';
HUNTING I 2 0='HUNT';
IN I 4 0='IN';
INTO A 4 0='INTO';
INTO1 I 4 0='INTO';
INTRODUCED A 2 0='INTRODUCE';
IS I 3 0='BE';
ISTALKATIVE A 2 0='TALKATIVE';
KILL I 3 0='KILL';
KILLED A 2 0='KILL';
LEAVES I 3 0='LEAVE';
LEAVING I 3 0='LEAVE';
LIKE I 4 0='LIKE';
LITTLE A 2 0='LITTLE';
LOOKFOR I 3 0=;
LOOKS I 3 0='LOOK';
LOUD A 2 0='LOUD';
MAKE I 3 0='MAKE';
MAKES I 3 0='FORCE';
MANY A 2 2 ='MANY';
MORE A 2 2 ='MORE';
MUSICAL A 2 0='MUSICAL';
MUST A 6 2='MUST';
MUSTNOT A 6 2='SHOULD NOT';
NEG A 6 2='NOT';
NEW A 2 0='NEW';
NO A 2 2 ='NO';
OBSERVES I 3 0='OBSERVE';
OBTAINS I 3 0='OBTAIN';
OF I 4 0='OF';
OLDEN A 2 0='OLDEN';
ON I 4 0 ='ON';
ONE A 2 2='ONE';
ONLYA A 6 1='ONLY';
OTHER A 2 0='OTHER';
OUT A 4 0='OUT';
PAINTS A 3 0='PAINT';
PICKING I 2 0='PICK';
PRODUCES I 3 0='PRODUCE';
PUTS I 3 0='PUT';
PUTSOUT I 3 0=;
QUICKLY A 6 0='QUICK';
RAINY A 2 0='RAINY';
RALL A 2 0='ALL';
RAND I 5 0='AND';
RAND1 A 5 0='AND';
RAPES I 3 0='RAPE';
REMOVES I 3 0='REMOVE';
RETURNS A 3 0='RETURN';
REVEALS I 3 0='REVEAL';
RNULL I 7 0=;
ROTS A 3 0='ROT';
SATIATED A 2 0='SATIATED';
SAYS I 3 0='SAY';
SCATTERED A 2 0='SCATTERED';
SEARCHFOR I 3 0=;
SEARCH I 3 0='SEARCH';
SENDS I 3 0='SEND';
SET I 3 0='SET';
.
.
.
.
3 COLLECT(M1)=GATHERS;
3 COLLECT(M2)=PICKING;
3 COLLECT(M124)=HUNTING;
3 COLLECT(M125)=HUNTING;
2 DEFILED(M2)=DEFILES;
2 DEFILED(M125)=STAINED;
DEFILEMENT(M2)=EXCREMENT;
DEFILEMENT(M125)=BLOOD;
DEPRIVATION(M2)=MOTHER1;
DEPRIVATION(M125)=FOOD;
DEPRIVED(M2)=SON;
DEPRIVED(M125)=SON1;
CDIVIDE(M125)=HERO;
CEATEN(M1)=VULTURE;
ELEMENT1(M1)=WATER;
ELEMENT1(M2)=WATER;
ELEMENT1(M12)=FIRE;
ELEMENT1(M124)=WATER;
ELEMENT1(M125)=WATER;
ELEMENT2(M1)=FIRE;
ELEMENT2(M12)=WATER1;
2 EMOTION(M2)=ASHAMED;
2 EMOTION(M125)=ANGRY;
EXPEDITION(M1)=PALMS;
EXPEDITION(M2)=WILDFRUIT;
EXPEDITION(M124)=GAME;
EXPEDITION(M125)=TAPIR;
2 FAULT(M1)=FLIESLOWLY;
2 FAULT(M124)=ISTALKATIVE;
FINDFAMILY(M1)=HERO;
HELP(M1)=OBTAIN;
HELP(M124)=COVER;
CHERO(M1)=HERO;
CHERO(M2)=BAITOGOGO;
CHERO(M12)=HERO;
CHERO(M124)=ASARE;
CHERO(M125)=BEPKOROROTI;
HUSBAND(M12)=JAGUAR;
CKILL(M2)=KILL1;
CKILL(M125)=KILL2;
INTRO(M2)=NEWCHIEF;
INTRO(M124)=STARS;
INTRO(M125)=SKY;
2 LEVEL(M1)=CELESTIAL;
2 LEVEL(M2)=TERRESTIAL;
2 LEVEL(M12)=TERRESTIAL;
2 LEVEL(M124)=TERRESTIAL;
2 LEVEL(M125)=CELESTIAL;
2 LEVEL2(M1)=TERRESTIAL;
2 LEVEL2(M12)=TERRESTIAL;
CLIE(M12)=LIE;
LIZARDS(M1)=FORFOOD;
LIZARDS(M124)=ALLIGATOR;
LIZ1(M1)=LIZARD;
LIZ2(M124)=LIZARD;
MODIFY(M1)=ADD SUB;
MODIFY(M2)=ADD;
MODIFY(M12)=SUB GWIPE GREVEALS ADD
MODIFY(M124)=ADD;
MODIFY(M125)=ADD;
.
```

```
TEMPANIMAL =;
TEMPOBJECT=;
INDEX=I1 I2 I3;
*
$NETWORK;
*LEXTRP(WIFE OF BAITOGOGO) TO WIFEOFBAITOGOGO ;
*LEXTRP(MOTHER OF HERO) TO MOTHEROFHERO;
*LEXTRP(MAN FROM TAPIRCLAN) TO MANFROMTAPIRCLAN ;
*LEXTRP(WOMEN OF TRIBE) TO WOMENOFTRIBE;
*LEXTRP(MEN OF TRIBE) TO MENOFTRIBE;
*LEXTRP(DEPRIVED OF ) TO DEPRIVE ;
*LEXTRP(SEARCH FOR) TO SEARCHFOR ;
*LEXTRP(FLY SLOWLY) TO FLIESLOWLY;
*LEXTRP(PUTS OUT)TO PUTSOUT;
*LEXTRP(LOOKS FOR)TO LOOKFOR;
*LEXTRP(BELONGS TO)TO BELONGSTO;
*LEXTRP(BIRDS LITTLE)TO LITTLEBIRDS;
*LEXTRP(COME TO)TO COMETO;
*LEXTRP(GO INTO)TO GOINTO;
*LEXTRP(MOTHER HIS) TO MOTHER1;
*LEXTRP(SON HIS) TO SON1 ;
*LEXTRP(ASKS FOR) TO ASKFOR;
*LEXTRP(GO UP)TO GOUP;
*
*       BEGIN PROGRAM
*|THE FOLLOWING GROUPS ARE USED TO EXECUTE THE BASIC GROUP ORDER
*
*
*
*       |GROUP MASTER
*       | THIS GROUP MAPS TIME ONTO MYTH SEQUENCE
*       |  AND IS THE DRIVER OF THIS GENERATOR
*
$GROUP MASTER: 1H/ON;
*
$LOOP:  X.MYTHSEQ;
*
$RULE:  *DISABLE MASTER, *END;
  10,-10 : NUM(MYTHSEQ) EQ 0;
$RULE:(SENDGROUP) *REMOVE X FROM MYTHSEQ,
        *MOVE X TO MYTH,
        *MOVE ANIMALS(X) TO TEMPANIMALS,
        *MOVE OBJECT(X) TO TEMPOBJECTS,
        *MOVE CONTROL1SEQ TO CONT,
        *ENABLE MASTER2 IN 1M,
        *CALL CONTROL;
$ENDLOOP;
$ENDGROUP;
*
*       |GROUP MASTER2
*
$GROUP MASTER2:               1M/ON;
$RULE:  *MOVE CONTROLASEQ TO CONT,
        *DISABLE MASTER2,
        *ENABLE MASTER3 IN 1M,
        *CALL CONTROL;
$ENDGROUP;
*
*
*       |GROUP MASTER3
*
*
*
*
$GROUP MASTER3:               1M/ON;
$RULE : *MOVE CONTROL2SEQ TO CONT,
        *DISABLE MASTER3,
        *CALL CONTROL;
$ENDGROUP;
*
*
*       |GROUP CONTROL
*       |THIS GROUP CONTROLS THE SEQUENCING OF THE EVENTS
*       |IN EACH MYTH WHICH ARE GIVEN IN CONTROLSEQ
*
$GROUP CONTROL:               10M/OFF;
*
*               |LOOP ON CONTROL SEQUENCE
*
$LOOP :                       Y.CONT;
*
$RULE : *MOVE Y TO CNTRL,     *CALL CNTRL;
$ENDLOOP;
$RULE: *RETURN;
$ENDGROUP;
*
*|THE FOLLOWING GROUPS CORRESPOND TO THOSE IN THE STYLIZED PROGRAM
*       |GROUP ADD
*
$GROUP ADD;                   10M/OFF;
$LOOP: M.MYTH;
$RULE: *CALL ADDITION(M),
  *INSERT(ELEMENT1(M) CREATED)(ELEMENT1(M) LEVEL(M));
$ENDLOOP;
$ENDGROUP;
*
*
*       |GROUP ADDL
*
$GROUP ADDL:          10M/OFF;
$LOOP : M.MYTH;
$RULE: *CALL ADDITION(M),
  *INSERT(ELEMENT1(M) CREATED)(ELEMENT1(M) LEVEL(M));
$ENDLOOP;
$ENDGROUP;
*
*       |GROUP ADORNMENTS
*
$GROUP ADORNMENTS:            10M/OFF;
$RULE: *INSERT(THEY BRINGS ORNAMENTS)
    (BRINGS FOR RITES)
       (RITES FUNERAL) ;
$ENDGROUP;
*
*       |GROUP ALERT
*
$GROUP ALERT:                 10M/OFF;
$LOOP: M.MYTH;
$RULE:  ULST XX,
       *INSERT(IT ALERTS SOULS)(ALERTS WOULD),
LST XX,
```

```
MUSIC(M2)=INSTRUMENTS;
MUSIC(M125)=PIGS;
NEED(M1)=SOULNEST;
NEED(M124)=HIDE;
OBJECT(M1)=GREATDANCERATTLE SMALLRATTLE BELLS;
OBJECT(M124)=BARK STRAW RIND;
OBSERVER(M2)=SON;
OBSERVER(M124)=ASARE;
ORNAMNT(M2)=ADORNMENTS;
ORNAMNT(M125)=WARPAINT;
PROCURER(M1)=WOMENOFTRIBE;
PROCURER(M2)=WIFEOFBAITOG;
PROCURER(M124)=FATHER;
PROCURER(M125)=MENOFTRIBE;
PURSUIT(M124)=ALLIGGATOR;
RAPIST(M1)=HERO;
RAPIST(M2)=MANFROMTAPIRCLAN;
RAPIST(M124)=BROTHERS;
REASON(M1)=ALERT;
REASON(M124)=REFUSE;
RELATION(M1)=FATHER;
RELATION(M12)=BROTHERINLAW;
RELATION(M124)=;
RELATION(M125)=;
CREVENGE(M1)=HELPERS;
CREVENGE(M2)=KILLSWIFE;
CREVENGE(M124)=THRASH;
CREVENG2(M1)=FATHER;
2 SPEED(M2)=SLOWLY;
2 SPEED(M125)=QUICKLY;
SUBTRACTION(M1)=FIREOUT;
SUBTRACTION(M12)=CREEK;
CTAPIR(M2)=MANFROMTAPIRCLAN;
CTAPIR(M125)=TAPIR;
3 USED(M1)=HEARD;
3 USED(M124)=EATEN;
CVERTICAL(M1)=BIRDNESTING;
CVERTICAL(M2)=TREE;
CVERTICAL(M12)=BIRDNESTING;
CVERTICAL(M124)=FALCONS;
CVERTICAL(M125)=MOUNTAIN;
VICTIM(M1)=MOTHER1;
VICTIM(M2)=WIFEOFBAITOGOGO;
VICTIM(M124)=MOTHEROFHERO;
WANDERER(M1)=HERO;
WANDERER(M2)=BAITOGOGO;
WANDERER(M12)=HERO JAGUAR;
WANDERER(M124)=ASARE BROTHERS;
2 WANT(M1)=HUNGRY;
2 WANT(M12)=THIPSTY;
*             CLASSES USED FOR SEQUENCING MYTHS AND CONTROL
*
MYTHSEQ=M1 M2 M12 M124 M125;
CONTROL1SEQ=GCLAN GATHER RAPE OBSERVE DISCOVERY REVENGE;
CONTROLASEQ=CRIME BLOOD DIVIDE DEPRIVES VERTICAL DEFILE GWANT;
CONTROL2SEQ = LIZR1 GEATEN GDOWN REAR HORIZONTAL LIZR2
   GFINDFAMILY MODIFICATION GPURSUIT REVENGE2 GINTRO;
MYTH=;
CONT =;
CNTRL =;
*
*
*
*
*
*
       *DISCLEAR PREASON,
          *DISCADD(IT ALERTS SOULS) TO PREASON;
$ENDLOOP;
$ENDGROUP;
*
*
*       |GROUP ALLIGATOR
*
$GROUP ALLIGATOR:             10M/OFF;
$RULE: *INSERT(ANIMAL(M) DEVELOP)
          (DEVELOP FROM LIZARD);
$ENDGROUP;
*
*
*
*             |GROUP BIRDNESTING
$GROUP BIRDNESTING:           10M/OFF;
*
$LOOP: M.MYTH;
*
$RULE: *INSERT(RELATION(M) MAKES CHERO(M))(MAKES CAPTURE MACAWS)
     (MAKES CLIMB POLE);
$RULE: *INSERT(CHERO(M) SAYS THAT)(NEST EMPTY) ;
10,-10: NUM(CLIE(M)) GT 0;
$RULE: RELATION(M) REMOVES POLE,
     CHERO(M) STRANDED;
$ENDLOOP;
$RULE: *RETURN;
$ENDGROUP;
*
*|GROUP BLOOD
*
$GROUP BLOOD:                 10M/OFF;
$LOOP: M.MYTH;
$RULE: *CALL BLOODSHED(M);
$ENDLOOP;
$ENDGROUP;
*
*       |GROUP BLOODY
*
$GROUP BLOODY :               10M/OFF;
$LOOP: M.MYTH;
$RULE: CHERO(M) DISMEMBERS CTAPIR(M);
$ENDLOOP;
$ENDGROUP;
*
*       |GROUP GCLAN
*
$GROUP GCLAN:                 10M/OFF;
$LOOP: M.MYTH;
$RULE: *INSERT(CHIEFS BELONGSTO TUGAREMOIETY)
       (BELONGSTO IN TIMES)
       (CHIEFS VILLAGE)
       (TIMES OLDEN),
       BAITOGOGO IS CHIEF;
10,-10: NUM(CLAN(M)) GT 0;
$ENDLOOP;
$ENDGROUP;
*
```

```
$
$       GROUP COVER
$
$GROUP COVER:                   10M/OFF;
$LOOP: M.MYTH;
$RULE: *INSERT(TEMPANIMAL COVERS CHERO(M))
              (COVERS WITH TEMPOBJECT);
$ENDLOOP;
$ENDGROUP;
$
$       GROUP CREEK
$
$GROUP CREEK:                   10M/OFF;
$LOOP: M.MYTH;
$LOOP : K.INDEX;
$RULE: *CALL QUANTA, *REMOVE TEMPANIMAL FROM ANIMALS(M);
$RULE: *INSERT(CHERO(M) RAND JAGUAR)
              (JAGUAR COMETO CREEK),
              *INSERT(CHERO(M) WANTS)
              (WANTS RNULL NDRINK),
              *DISCLEAR PREASON,
              *DISCADO (ELEMENT2(M) BELONGSTO TEMPANIMAL) TO PREASON,
              *INSERT(CHERO(M) DRINK PREASON)
              (DRINK CANNOT);
$ENDLOOP;
$RULE: *INSERT(CHERO(M) DRINK ELEMENT2(M))
              (DRINK RAND1)
              (RAND1 DRAIN)
              (DRAIN RNULL CREEK1)
              (CREEK OF ALLIGATOR);
$ENDLOOP;
$ENDGROUP;
$
$       GROUP CRIME
$
$GROUP CRIME:                   10M/OFF;
$LOOP: M.MYTH;
$
$RULE C1:T($NEXT M) CHERO(M) KILL CTAPIR(M);
10,-10: NUM(SPEED(M)) EQ 0 AND NUM(CTAPIR(M)) GT 0;
$RULE: *INSERT(CHERO(M) KILL CTAPIR(M))(KILL SPEED(M));
10,-10:NUM(CTAPIR(M)) GT 0 AND NUM(SPEED(M)) GT 0;
$ENDLOOP;
$ENDGROUP;
$
$       GROUP DEFILE
$
$GROUP DEFILE:                  10M/OFF;
$LOOP: M.MYTH;
$RULE: *INSERT(CHERO(M) DEFILED(M))
       (DEFILED(M) WITH DEFILEMENT(M)),
       CHERO(M) EMOTION(M);
10,-10: NUM(DEFILED(M)) GT 0;
$ENDLOOP;
$ENDGROUP;
$
$       GROUP DEPRIVES
$
$GROUP DEPRIVES:                10M/OFF;
$LOOP: M.MYTH;
$
$RULE: DEPRIVED(M) DEPRIVE DEPRIVATION(M);
10,-10:NUM(DEPRIVED(M)) GT 0;
$ENDLOOP;
$RULE :        *RETURN;
$ENDGROUP;
$
$       GROUP DISCOVERY
$
$GROUP DISCOVERY:                     10M/OFF;
$LOOP: M.MYTH;
$
$RULE: T($NEXT M) *INSERT(OBSERVER(M) TELLS FATHER)(TELLS OF RAPE
10,-10:NUM(OBSERVER(M)) GT 0;
$RULE: FATHER DISCOVRS RAPE;
10,-10:NUM(OBSERVER(M)) EQ 0 AND NUM(RAPIST(M)) GT 0;
$ENDLOOP;
$RULE: *RETURN;
$ENDGROUP;
$
$       GROUP DIVIDE
$
$GROUP DIVIDE:                  10M/OFF;
$LOOP: M.MYTH;
$RULE: *INSERT(MEN DIVIDES FLESH)
       (MEN OTHER),
       *INSERT(CHERO(M) GIVEN PAWS)
       (GIVEN ONLYA)
       (PAWS TWO),
*INSERT(WIFE SHAVES HEAD)
       (SHAVES RAND1)
       (RAND1 PAINTS)
       (PAINTS WITH GENIPAJUICE)
       (PAINTS RNULL HIM)(HEAD HIS)(WIFE HIS);
10,-10: NUM(CDIVIDE(M)) GT 0;
$ENDLOOP;
$ENDGROUP;
$
$       GROUP DIVULGE
$
$GROUP DIVULGE:                 10M/OFF;
$RULE: *INSERT(MONKEY1 DIVULGES SECRET)
       (DIVULGES ALMOST)
       (MONKEY1 ONE),
       *INSERT(MONKEY1 STRIKES IT)
       (STRIKES ON LIPS)
       (MONKEY1 ANOTHER);
$ENDGROUP;
$
$       GROUP GDOWN
$
$GROUP GDOWN:                   10M/OFF;
$LOOP: M.MYTH;
$RULE: *INSERT(ANIMAL(M) HELPS CHERO(M))
       (HELPS DOWN);
10,-10: (CVERTICAL(M) EQL BIRDNESTING);
$ENDLOOP;
$ENDGROUP;
```

```
$GROUP CEATEN:                  10M/OFF;
$LOOP: M.MYTH;
$RULE: *INSERT(ANIMAL(M) EAT REST)(REST OF LIZARD),
       *INSERT(ANIMAL(M) EAT HINDQUART)
       (HINDQUART OF CHERO(M)),
       *INSERT(ANIMAL(M) WILLING)
       (ANIMAL(M) SATIATED)
       (WILLING HELPS CHERO(M));
10,-10: NUM(CEATEN(M)) GT 0;
$ENDLOOP;
$ENDGROUP;
$
$       GROUP FALCONS
$
$GROUP FALCONS:                 10M/OFF;
$RULE: *INSERT(BROTHERS SET FIRE)(SET TO HOUSE)(HOUSE OF PARENTS),
       *INSERT(PARENTS BECOMES FALCONS)(BECOMES ESCAPEN);
$RULE: *RETURN;
$ENDGROUP;
$
$       GROUP FATHER
$
$GROUP FATHER:                  10M/OFF;
$LOOP: M.MYTH;
$RULE: *INSERT(CHERO(M) GETS REVENGE)
       (REVENGE ON FATHER)
       (FATHER HIS)
       (FATHER RAND WIVES)
       (WIVES OF FATHER);
$ENDLOOP;
$ENDGROUP;
$
$       GROUP FINDFAMILY
$GROUP GFINDFAMILY:             10M/OFF;
$LOOP: M.MYTH;
$RULE: *INSERT(CHERO(M) LOOKFOR FAMILY)
       (FAMILY HIS),
       *INSERT(CHERO(M) FINDS FAMILY)
       (FAMILY HIS),
       *INSERT(CHERO(M) APPEARS)
       (APPEARS AS LISARD),
       *CALL GREVEALS;
10,-10: NUM(FINDFAMILY(M)) GT 0;
$ENDLOOP;
$ENDGROUP;
$
$       GROUP FIRE
$
$GROUP FIRE:                    10M/OFF;
$RULE: *INSERT(PEOPLE CAPTURES FIRE)
       (CAPTURES FROM JAGUAR);
$ENDGROUP;
$
$       GROUP FIREOUT
$
$GROUP FIREOUT:                 10M/OFF;
$RULE: *INSERT(STORM PUTSOUT ELEMENT2(M))
       (ELEMENT2(M) RALL)
       (PUTSOUT EXCEPT THAT2)
.
$ENDGROUP;
$
$       GROUP FORFOOD
$
$GROUP FORFOOD:                 10M/OFF;
$LOOP: M.MYTH;
$RULE: *INSERT(CHERO(M) EAT SOME)(SOME OF LIZARD),
       *INSERT(REST ROTS)(REST OF LIZARD);
$ENDLOOP;
$ENDGROUP;
$
$       GROUP GATHER
$
$GROUP GATHER:                  10M/OFF;
$LOOP: M.MYTH;
$RULE: PROCURER(M) COLLECT(M) EXPEDITION(M);
10,-10: NUM(PROCURER(M)) GT 0;
$ENDLOOP;
$RULE: *RETURN;
$ENDGROUP;
$
$       GROUP HELPERS
$
$GROUP HELPERS:                 10M/OFF;
$LOOP: M.MYTH;
$
$LOOP: K.INDEX;
$RULE: *CALL QUANTA, *REMOVE TEMPANIMAL FROM ANIMALS(M),
       *CALL QUANTO, *REMOVE TEMPOBJECT FROM OBJECT(M);
$RULE: *CALL NEED(M),
       *INSERT(CHERO(M) ASKS TEMPANIMAL)(ASKS FOR HELPN),
       *CALL HELP(M),
       *CALL REASON(M);
$RULE: *INSERT(TEMPOBJECT BE)
       (BE MUSTNOT)
       (BE USED(M) PREASON);
$RULE: *INSERT(TEMPANIMAL DROPS TEMPOBJECT)
       (DROPS WITH NOISE)(DROPS INTO1 WATER1)
       (NOISE LOUD),
       SOULS ALERTED,
       *INSERT(SOULS SHOOT ARROWS)(SHOOT AT TEMPANIMAL);
10,-10: (M1 EQL MYTH);
$ENDLOOP;
$RULE: TEMPANIMAL FAULT(M),
       *CALL ALMOSTFAILS(M);
$ENDLOOP;
$ENDGROUP;
$
$       GROUP HIDE
$
$GROUP HIDE:                    10M/OFF;
$LOOP: M.MYTH;
$RULE: *INSERT(CHERO(M) HIDES)
       (HIDES FROM ANIMAL(M))
       (HIDES MUST);
$ENDLOOP;
$ENDGROUP;
```

```
*
*     |GROUP HORIZONTAL
*
$GROUP HORIZONTAL:              10M/OFF;
$LOOP: M.MYTH;
*
$RULE: *INSERT(WANDERER(M) WANDER)(WANDER THROUGH COUNTRY);
10,-10: NUM(WANDERER(M)) GT 0;
$ENDLOOP;
$RULE: *RETURN;
$ENDGROUP;
*
*     |GROUP INSTRUMENT
*
$GROUP INSTRUMENT:              10M/OFF;
$RULE: *INSERT(BAITOGOGO RETURNS)
       (RETURNS WITH HEROES)
       (RETURNS TO NVILLAGE)
       (BAITOGOGO RAND CHIEF)
       (CHIEF OTHER)
       (HEROES SOME1)
       (HEROES OTHER),
*INSERT(THEY BRINGS INSTRUMENTS)
       (INSTRUMENTS MUSICAL);
$ENDGROUP;
*
*     |GROUP GINTRO
*
$GROUP GINTRO:              10M/OFF;
$LOOP: M.MYTH;
$RULE: *CALL INTRO(M);
10,-10: NUM(INTRO(M)) GT 0;
$ENDLOOP;
$ENDGROUP;
*
*     |GROUP KILL1
*
$GROUP KILL1:              10M/OFF;
$RULE: *INSERT(CHIEF ASKFOR ORNAMENTS)(CHIEF NEW),
       *INSERT(CHIEF KILL HEROES)
       (HEROES WHO)
       (WHO GIVE FEW)(GIVE ONLYA)
       (GIVE RNULL HIM)
       (CHIEF NEW);
$ENDGROUP;
*
*     |GROUP KILL2
*
$GROUP KILL2:              10M/OFF;
$RULE: *INSERT(BEPKOROROTI CAUSE THUNDERBOLT)
       (CAUSE FALL),
       *INSERT(PEOPLE KILLED)
       (PEOPLE MANY);
$ENDGROUP;
*
*     |GROUP KILLSWIFE
*
$GROUP KILLSWIFE:              10M/OFF;
$LOOP: M.MYTH;
$RULE: *INSERT(BAITOGOGO STRANGLES WIFE)
       (WIFE HIS);
$ENDLOOP;
.
$RULE: *RETURN;
$ENDGROUP;
*
*     |GROUP LAKE
*
$GROUP LAKE:              10M/OFF;
$RULE: *INSERT(LAKE APPEARS)(APPEARS WHENEVER BAITOGOGO)
      (BAITOGOGO STOPS)(STOPS WALKING),
       *INSERT(TREE SHRINKS)(TREE ON SHOULDER)(SHOULDER OF BAITOGOGO)
$RULE: *RETURN;
$ENDGROUP;
*
*     |GROUP LIZARD
*
$GROUP LIZARD:              10M/OFF;
$LOOP: M.MYTH;
$RULE: *INSERT(CHERO(M) KILL LIZARD)(LIZARD SOME1),
       *CALL LIZARDS(M);
10,-10: NUM(LIZARDS(M)) GT 0;
$ENDLOOP;
$ENDGROUP;
*
*     |GROUP LIZR1
*
$GROUP LIZR1:              10M/OFF;
$LOOP: M.MYTH;
$RULE: *CALL LIZ1(M);
$ENDLOOP;
$ENDGROUP;
*
*     |GROUP LIZR2
*
$GROUP LIZR2:              10M/OFF;
$LOOP: M.MYTH;
$RULE: *CALL LIZ2(M);
$ENDLOOP;
$ENDGROUP;
*
*     |GROUP MODIFICATION
*
$GROUP MODIFICATION:              10M/OFF;
$LOOP: M.MYTH;
$RULE: *CALL MODIFY(M);
$ENDLOOP;
$ENDGROUP;
*
*     |GROUP MOUNTAIN
*
$GROUP MOUNTAIN:              10M/OFF;
$RULE: *INSERT(BEPKOROROTI ASCENDS MOUNTAIN)
       (BEPKOROROTI RAND SON1),
       *INSERT(BEPKOROROTI SMEARS CLUB)
       (SMEARS WITH BLOOD)
       (BLOOD OF TAPIR);
$RULE: *RETURN;
$ENDGROUP;
```

```
*     |GROUP NEWCHIEF
*
$GROUP NEWCHIEF:              10M/OFF;
$RULE: *INSERT(BAITOGOGO LEAVES NVILLAGE)
       (BAITOGOGO RAND CHIEF)
       (CHIEF OTHER),
       *INSERT(CHIEF BELONGSTO CERAMOIETY)
       (CHIEF NEW),
       *CALL ORNAMENTS;
$ENDGROUP;
*
*     |GROUP NOBLOOD
*
$GROUP NOBLOOD:              10M/OFF;
$RULE: *INSERT(WIFEOFBAITOGOGO KILLED)
       (KILLED WITHOUT BLOODSH);
$ENDGROUP;
*
*     |GROUP OBSERVE
*
$GROUP OBSERVE:              10M/OFF;
$LOOP: M.MYTH;
$RULE: OBSERVER(M) OBSERVES RAPE;
10,-10: NUM(OBSERVER(M)) GT 0;
$ENDLOOP;
$RULE: *RETURN;
$ENDGROUP;
*
*     |GROUP OBTAIN
*
$GROUP OBTAIN:              10M/OFF;
$LOOP: M.MYTH;
$RULE: *INSERT(TEMPANIMAL OBTAINS TEMPOBJECT)
       (OBTAINS FOR CHERO(M));
$ENDLOOP;
$ENDGROUP;
*
*     |GROUP ORNAMENTS
*
$GROUP ORNAMENTS:              10M/OFF;
$LOOP: M.MYTH;
$RULE: *INSERT(CHERO(M) RAND SON1)(SON1 ASSOC(M)),
       *CALL MUSIC(M),
       *CALL ORNAMNT(M),
       *CALL CKILL(M),
       POPULATION SCATTERED;
$ENDLOOP;
$ENDGROUP;
*
*     |GROUP PIGS
*
$GROUP PIGS:              10M/OFF;
$LOOP: M.MYTH;
$RULE: *INSERT(CHERO(M) SHOUTS)
       (SHOUTS LIKE PIGS)
       (PIGS WILD);
$ENDLOOP;
$ENDGROUP;
*
*     |GROUP GPURSUIT
*
.
.
       *INSERT(ANIMAL(M) CHASE CHERO(M))
       (CHASE FROM WATER1),
       *CALL HELPERS,
       *INSERT(ASARE ASKS SKUNK)
       (ASKS FOR HELPN)
       (SKUNK IS UNCLE)
       (UNCLE HIS),
       *INSERT(SKUNK KILL ANIMAL(M))
       (KILL WITH STENCH)
       (STENCH HIS);
10,-10: NUM(PURSUIT(M)) GT 0;
$ENDGROUP;
*
*     |GROUP RAIN
*
$GROUP RAIN:              10M/OFF;
$LOOP: M.MYTH;
$RULE: THERE IS THUNDERSTORM;
$ENDLOOP;
$RULE: *RETURN;
$ENDGROUP;
*
*     |GROUP RAPE
*
$GROUP RAPE:              10M/OFF;
$LOOP: M.MYTH;
$RULE: RAPIST(M) RAPES VICTIM(M);
10,-10: NUM(RAPIST(M)) GT 0;
$ENDLOOP;
$RULE: *RETURN;
$ENDGROUP;
*
*     |GROUP REAR
*
$GROUP REAR:              10M/OFF;
$LOOP: M.MYTH;
$RULE: *INSERT(CHERO(M) HAS HINDQUART)
       (HINDQUART NO),
       *INSERT(CHERO(M) MAKE HINDQUART)
       (MAKE WITH DOUGH)(HINDQUART MORE);
10,-10: NUM(CEATEN(M)) GT 0;
$ENDLOOP;
$ENDGROUP;
*
*     |GROUP REFUSE
*
$GROUP REFUSE:              10M/OFF;
$LOOP: M.MYTH;
$RULE: ULST XX,
       *INSERT(IT IS REFUSE)
       (REFUSE FOODR),
       LST XX,
       *DISCLEAR PREASON,
       *DISCADD(IT IS REFUSE) TO PREASON;
$ENDLOOP;
$ENDGROUP;
```

```
$
$      |GROUP GREVEALS
$
$GROUP GREVEALS:                    10M/OFF;
$LOOP: M.MYTH;
$RULE: *INSERT(CHERO(M) REVEALS HIMSELF)
       (REVEALS TO FAMILY)
       (FAMILY HIS);
$ENDLOOP;
$ENDGROUP;
$
$      |GROUP REVENGE
$
$GROUP REVENGE:                    10M/OFF;
$LOOP: M.MYTH;
$RULE: *CALL CREVENGE(M);
10,-10: NUM(CREVENGE(M)) GT 0;
$ENDLOOP;
$RULE: *RETURN;
$ENDGROUP;
$
$      |GROUP REVENGE2
$
$GROUP REVENGE2:                    10M/OFF;
$LOOP: M.MYTH;
$RULE: *CALL CREVENG2(M);
10,-10: NUM(CREVENG2(M)) GT 0;
$ENDLOOP;
$ENDGROUP;
$
$      |GROUP SEA
$
$GROUP SEA:                    10M/OFF;
$RULE: ASARE THIRSTY,
       BROTHERS DIG WELL,
       *INSERT(ASARE DRINK ALL)(DRINK CANNOT)(ALL OF WATER1),
       WELL PRODUCES SEA;
$RULE: *RETURN;
$ENDGROUP;
$
$      |GROUP GSHOT
$
$GROUP GSHOT:                    10M/OFF;
$RULE: *INSERT(TEMPANIMAL HIT)
       (HIT BY ARROWS),
       *INSERT(TEMPANIMAL KILLED)
       (KILLED NEG);
$ENDGROUP;
$
$      |GROUP SKY
$
$GROUP SKY:                    10M/OFF;
$LOOP: M.MYTH;
$RULE: *CALL ORNAMENTS,
       *INSERT(CHERO(M) GOINTO SKY)
       (CHERO(M) RAND SON1);
$ENDLOOP;
$ENDGROUP;
$
$.     |GROUP SOULNEST
$
$GROUP SOULNEST:                    10M/OFF;
$LOOP: M.MYTH;
$RULE: *INSERT(FATHER SENDS CHERO(M))
.
.
       (SENDS FOR TEMPOBJECT)
       (SENDS TO NEST)
       (NEST OF SOULS1),
       *INSERT(CHERO(M) ASKS GRANDMOTHER)
       (ASKS HELPSA)(GRANDMOTHER HIS),
       *INSERT(GRANDMOTHER ADVISES CHERO(M))
       (ADVISES ASKS TEMPANIMAL)(GRANDMOTHER HIS);
$ENDLOOP;
$ENDGROUP;
$
$      |GROUP STARS
$
$GROUP STARS:                    10M/OFF;
$RULE: *INSERT(BROTHERS BATHES)
       (BATHES IN SEA),
       *INSERT(THEY BATHES)
       (BATHES DURING SEASON)
       (BATHES TODAY)
       (SEASON RAINY),
       *INSERT(THEY APPEARS)
       (APPEARS WHEN)
       (WHEN CLEAN)
       (APPEARS AS PLEIADES)
       (APPEARS IN SKY);
$ENDGROUP;
$
$      |GROUP SUB
$
$GROUP SUB:                    10M/OFF;
$LOOP: M.MYTH;
$RULE: *CALL SUBTRACTION(M),
*INSERT(ELEMENT2(M) DESTROYED)(ELEMENT2(M) LEVEL2(M));
$ENDLOOP;
$ENDGROUP;
$
$      |GROUP THRASH
$
$GROUP THRASH:                    10M/OFF;
$RULE: FATHER THRASHES BROTHERS;
$RULE: *RETURN;
$ENDGROUP;
$
$      |GROUP TREE
$
$GROUP TREE:                    10M/OFF;
$RULE: SON BECOMES BIRD,
       BIRD SEARCHFOR MOTHER,
       *INSERT(BIRD DROPS EXCREMENT)(DROPS ON BAITOGOGO),
        EXCREMENT BECOMES TREE;
$RULE: *RETURN;
$ENDGROUP;
$
$      |GROUP VERTICAL
$
$GROUP VERTICAL:                    10M/OFF;
$LOOP: M.MYTH;
$RULE: *CALL CVERTICAL(M);
$ENDLOOP;
$RULE: *RETURN;
$ENDGROUP;
.
.
$
$      |GROUP GWANT
$
$GROUP GWANT:                    10M/OFF;
$LOOP: M.MYTH;
$RULE: CHERO(M) WANT(M);
10,-10: NUM(WANT(M)) GT 0;
$ENDLOOP;
$ENDGROUP;
$
$      |GROUP WARPAINT
$
$GROUP WARPAINT:                    10M/OFF;
$RULE: *INSERT(WARPAINT RAND WARCRYS)
       (WARCRYS INTRODUCED);
$ENDGROUP;
$
$      |GROUP GWIFE
$
$GROUP GWIFE:                    10M/OFF;
$LOOP: M.MYTH;
$RULE: *INSERT(WIFE UNFRIENDLY)
       (WIFE OF HUSBAND(M)),
       *INSERT(CHERO(M) KILL WIFE)
       (WIFE OF HUSBAND(M));
10,-10: NUM(HUSBAND(M)) GT 0;
$ENDLOOP;
$ENDGROUP;
$
$|THE FOLLOWING GROUPS PERMIT DOUBLE SUBSCRIPTS
$|GROUPS TO QUANTIFY TEMPORARY ANIMAL NO OBJECT CLASSES
$
$
$
$      |GROUP QUANTA
$
$GROUP QUANTA:                    10M/OFF;
$LOOP: M.MYTH;
$LOOP: Q.ANIMALS(M);
$RULE: ($ENDGROUP)*MOVE Q TO TEMPANIMAL;
$ENDLOOP;
$ENDLOOP;
$ENDGROUP;
$
$      |GROUP QUANTO
$
$GROUP QUANTO:                    10M/OFF;
$LOOP: M.MYTH;
$LOOP: O.OBJECT(M);
$RULE: ($ENDGROUP) *MOVE Q TO TEMPOBJECT;
$ENDLOOP;
$ENDLOOP;
$ENDGROUP;
$
$      |END OF PROGRAM
$
$END;
```

5.0. PROPP

5.1. Automatisation de la théorie de Propp concernant les contes à un mouvement.

Le programme présenté ici est une version révisée de celle donnée dans Klein et al. (1974). Les trente textes de contes produits sont également nouveaux, l'appendice comprend un listing complet du programme et de la grammaire. Pour deux contes, on a placé à côté du texte produit la pile des modifications (liste des structures profondes successives), les commentaires qui les accompagnent font référence soit au programme de simulation, soit au texte de Propp lui-même. Les vingt-huit contes restant sont rassemblés dans l'appendice. Le programme produit en fai' deux piles de modifications pour chaque conte ; c'est à cette division que correspond la division en deux paragraphes du texte fourni par la machine.

Le point le plus délicat dans l'automatisation de Propp comme de Levi-Strauss, concerne la quantification logique des fonctions, c'est-à-dire la sélection cohérente au cours de l'intrigue de personnages de fonctions et d'objets qui soient compatibles entre eux. Propp suggère une liberté de composition qui ne paraît pas logiquement cohérente, bien qu'ailleurs (1968 : 112) il mentionne la nécessité pour le conteur de s'astreindre à des contraintes logiques présidant aux combinaisons en apparence arbitraires de l'intrigue. Ce point est discuté dans le travail de pionnier d'Elli-Köngas Maranda, "Individual and tradition", (1974). Dans le modèle de Propp présenté ici, un souci majeur a consisté à mettre en place une quantification logique contraignante. Comme dans l'exemple concernant Levi-Strauss, les classes indicées ont été utilisées ainsi que d'autres types de sélection logique (les indices permettent ici de former des ensembles de personnages, d'objets et de fonctions qui soient compatibles, plutôt que de conduire à des choix prédéterminés. Ceci correspond à l'orientation générale des hypothèses faites par Propp lui-même (1968 : 47, figure 1). Des tirages aléatoires sont opérés dans les classes en fonction de leurs indices).

Heda Jason, Dimitri Segal, Pierre et Elli-Köngas Maranda nous ont déclaré par oral, que les contes produits bien que fidèles aux spécifications énoncées par Propp, n'en étaient pas moins différents des contes russes réels. Jason et Segal ont plus particulièrement indiqués que si la syntaxe du modèle de Propp avait été respectée, certaines règles sémantiques d'ordre culturel avaient été violées. Toutes sortes de défauts subtils de cet ordre gènent un russe d'origine (Segal). Et de ce point de vue, Jason note que le modèle démontre utilement qu'il est nécessaire en folklore de distinguer entre syntaxe et sémantique (dans ce cas présent "sémantique" fait référence à des contraintes très subtiles portant sur la sélection d'unités en fonction de conventions culturelles obvies pour le conteur indigène). Jason estime que c'est précisément notre ignorance du matériau original (contes russes) qui nous a permis de montrer en quoi les hypothèses de Propp, et de la plupart des théories ethno-poétiques contemporaines sont inadéquates. Car le modèle que nous avons construit de Propp est fidèle et si les contes ne sont pas acceptés par le lecteur indigène en raison de la violation de contraintes culturelles plus subtiles, il faut porter au crédit du modèle d'avoir mis en évidence l'existence de ces règles. (Elles sont par ailleurs aisées à prendre en compte, chaque connection ne requiert pas plus qu'une entrée dans la déclaration d'une classe ou une ligne de code supplémentaire).

Dans cette version corrigée du programme, la quantification logique de chaque conte est calculée par un groupe de contrôle principal avant de commencer l'exécution des groupes de règles. Afin de provoquer la production d'un conte, un nombre quelconque est fourni au générateur de nombres aléatoires. A partir de cette racine, ce mécanisme construit une séquence de nombres pseudo-aléatoires qui sont utilisés au cours de la construction du conte. Ainsi, il y a autant de contes possibles que de nombres (dans la pratique ce nombre ne peut dépasser les valeurs stockables dans un emplacement mémoire de la machine utilisée). Il est bien sur possible que plusieurs de ces contes soient des répliques exactes, mais nous ne discuterons pas ce point qui soulève des questions d'ordre à la fois statistique et empirique. Les numéros donnés aux textes de contes ne correspondent pas aux nombres qui ont servi de base pour les produire.

On ne commentera pas ici en détail le programme de simulation. Dans le texte de ce programme, des commentaires ont été insérés (soulignés par des lignes verticales). Ils renvoient aux pages de la deuxième édition de Propp (en anglais, 1968) et utilisent exactement les mêmes termes que ceux choisis dans cette édition pour désigner les fonctions. Ceci devrait permettre au lecteur de se convaincre que la modélisation faite de Propp est complète et pratiquement en correspondance bijective avec l'original. Ainsi le texte de Propp, 1968, peut-il être utilisé à l'égard de notre programme comme l'exemple schématique donné ci-dessus de la production d'un mythe issu du livre de Levi-Strauss.

5.2. La modélisation de contes à plusieurs mouvements.

L'utilisation de classes indicées à des fins de quantification est un procédé de quantification transformationnel dérivé de celui proposé par Lakoff à propos de Propp dans "Structural complexity in Fairy Tales" (1964, 1972) ; l'analogie faite par lui concernant l'utilisation de transformations pour la quantification de contes à plusieurs mouvements nous parait par trop imprécise. Les mécanismes de quantification requis sont beaucoup plus complexes que ne le laisse supposer la solution vague qu'il propose sous ce vocable, les possibilités de combinaison des mouvements sont limitées par Propp lui-même à des imbrications d'intrigues beaucoup plus simples que celles q'une combinaison logique permet de construire, la quantification d'un conte dont les parties sont fortement connectées et imbriquées est une tâche difficile mais qui doit être entreprise et pour laquelle une solution élégante doit être trouvée au-délà de l'application de simples recettes. Le problème est similaire à celui posé par le contrôle de l'exécution en parallèle de plusieurs programmes.

Une solution peu satisfaisante consisterait *à générer les nombres correspondant* aux contes principaux et à ceux qui leurs sont inclus avant le début de la production du texte. D'une façon plus élégante, on peut amener le programme de simulation à s'appeler lui-même récursivement, à l'instar des sous-programmes et avec les paramètres appropriés, chaque fois qu'il est nécessaire de générer un autre mouvement à l'intérieur

d'un mouvement déjà en cours. Des difficultés apparaissent néanmoins si des événements du mouvement inclus sont nécessaires à la quantification de fonctions du mouvement inclusif.

Le système de simulation méta-symbolique offre deux possibilités qui ne sont pas exploitées pour l'instant ; la première permet au système de se projeter dans le "futur" afin d'évaluer son évolution. Cette évaluation anticipée pourrait fournir les données nécessaires à la quantification de l'appel fait au moment de la production d'un mouvement inclus, ou encore pourrait se produire à la sortie de ce mouvement pour obtenir les paramètres qui permettent de quantifier le reste du mouvement inclusif. Le second dispositif permet au programme de simulation de produire et d'exécuter d'autres programmes de simulations (méta-compilation). Si on suppose que les règles gouvernant un mouvement inclus sont plus restrictives que celles qui s'appliquent à un conte, on peut imaginer que les données fournies par une évaluation anticipée soient utilisées pour construire, compiler et exécuter un ensemble de règles plus contraignantes qui produisent le type de mouvement inclus que nécessite le mouvement inclusif. Cette technique permettrait l'imbrication de contes possédant des relations logiques avec ceux qui les incluent, beaucoup plus étroites que celles observées dans les contes russes réels.

6.0. L'ANALYSE AUTOMATIQUE DES CONTES

Un analyseur sémantique complet adapté à ce système est en cours de construction. Il permettra en particulier de déterminer quelles règles d'un programme de simulation donné pourraient avoir produit une structure profonde correspondant à un texte fourni en entrée. Des références pourraient alors être établies entre les unités lexicales et les objets ou les relations sémantiques qu'elles représentent. Les règles elles-mêmes qui constituent le programme de simulation étant elles aussi représentées dans le même réseau sémantique, il serait alors possible de passer d'un texte à l'ensemble des triplets qui lui sont associés, puis de déterminer les règles qui pourraient avoir produit ceux-ci (et ceci même si ces règles sont formulées en termes de classes d'objets ou de rela-

tions). Ainsi l'origine d'un triplet comme "John loves Mary" pourrait être rattachée à une règle du type MEN LOVE WOMEN en constatant l'appartenance de l'entité "John" à la classe MEN et celle de "Mary" à la classe de WOMEN. Si une ambiguïté se produit, plusieurs règles étant applicables, on peut inspecter les conditions qui leur sont associées, afin de déterminer lesquels étaient satisfaites dans le contexte analysé. On peut caractériser cette procédure comme une analyse présuppositionnelle automatique, les règles étant assimilées aux événements et les conditions comme présuppositions du premier ordre.

Ainsi, si les règles constituent un modèle structurel permettant de générer les contes d'un type donné, l'analyseur sémantique rendrait simple l'analyse automatique de contes qui satisferaient aux exigences du modèle. On peut envisager d'introduire de plus des possibilités d'apprentissage : soit un conte dans lequel un élément n'est pas conforme au modèle, on peut alors assigner au modèle de déterminer un changement des règles d'inclusion qui restitue la conformité. L'analyse automatique produirait alors des conclusions du type : "ceci pourrait résulter de l'application de la règle B si l'objet X était ajouté à la classe Q".

7.0. VERS LA CREATION AUTOMATIQUE DE MYTHES ET DE REVES

Jusqu'à un certain point, les rêves et les mythes peuvent être considérés comme des problèmes de requantification de scénarios existant déjà dans d'autres domaines. On peut ainsi imaginer bon nombre d'expériences utilisant le système de simulation méta-symbolique. L'article de Köngas-Maranda sur les énigmes relatives à la modernisation fournit un bon exemple pour présenter ce type de démarche. L'auteur décrit les énigmes dans des formes et avec des termes provenant de la période antérieure à ce contact. Supposons que l'on construise un modèle de simulation des enigmes concernant les objets traditionnels dans leur environnement originel. Supposons que de plus ces règles soient formulées en termes de classes. La création d'une énigme consiste alors pour

l'essentiel à inclure le nouvel objet culturel à une classe appropriée sur la base des règles prévalant avant le contact et à formuler l'énigme en utilisant ni le nom de l'item, ni le nom de sa classe, mais celui d'un autre élément appartenant originellement à cette classe afin de construire la métaphore. Un programme qui construirait de telles énigmes ou un programme qui y répondrait devrait procéder à des comparaison entre les représentations sémantiques des deux types de règles et d'appartenance à des classes et rappellerait certaines des techniques utilisées par Köngas-Maranda dans "The logic of riddles" (1971) et dans "theory and practice of analysis" (1971).

La création de rêves peut également être considérée comme une tâche visant à quantifier un scénario. Selon l'hypothèse psychanalytique suivant laquelle les rêves tentent de résoudre des problèmes et des conflits issus du monde réel, supposons construit un modèle de simulation dont les règles décrivent le comportement d'un individu au cours de sa vie quotidienne. Résoudre un conflit consisterait à trouver un scénario de réussite construit selon les règles d'un individu et à procéder ensuite à la redifinition des classes qui intègrent de façon cohérente les éléments de la situation qui pose un problème, les règles ainsi modifiées produiraient à l'exécution de l'objet recherché : un rêve reconstruit. Une approche plus complexe impliquerait la compilation d'un scénario complètement neuf en suivant les indications fournies par des règles de méta-compilation adaptées à la production de rêves et qui opèreraient comme des transformations sur les scénarios existants. Ce type de production fait peut être partie des processus impliqués dans l'ontogénie des mythes ou dans la dérivation de mythes à partir de mythes existants.

8.0. UNE MODELISATION COMPLETE DE LEVI-STRAUSS/COMMENT LA REALISER.

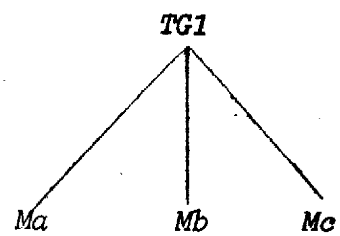
Un des résultats de ce travail informatique est, pensons-nous, de fournir deux éclairages importants sur le contenu de l'oeuvre de Levi-Strauss :

1) Le premier a trait à l'affirmation de Levi-Strauss que les structures mythiques peuvent être considérées comme des partitions d'orchestre et que la structure séquentielle des événements peut être comparée à la répétition d'un même type qui doit être soumis à un reclassement de type harmonique (Levi-Strauss, 1955). Cette affirmation peut être reformulée dans les termes du système de simulation méta-symbolique. Ces répétitions d'éléments similaires peuvent être assimilées aux occurrences de fragments de scénarios produits par le même groupe de règles après requantifications successives. Une analyse harmonique proche de l'orchestration est au préalable réellement nécessaire à la construction d'un groupe de règles accompagné de la quantification logique pertinente. Cette reformulation ne contredit pas la perspective de Levi-Strauss. Elle manifeste plutôt la capacité du modèle à reproduire une partie significative de son oeuvre.

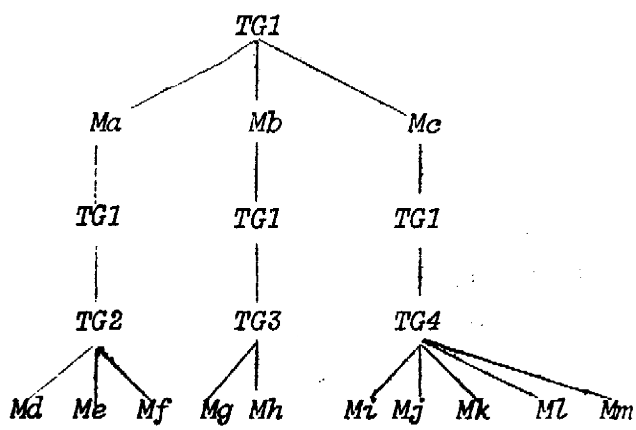
2) Le second est lié à la possibilité de suivre de façon systématique la pensée de Levi-Strauss elle-même. Notre travail actuel sur l'apprentissage mécanisé et la méta-compilation de grammaires de textes (Klein, 1975) fournit la méthode. Essentiellement, il est besoin de programme possédant les capacités d'apprentissage nécessaires pour incorporer les caractéristiques d'un texte nouveau dans une grammaire de texte déjà existante ou pour créer une nouvelle grammaire ayant le même domaine que l'ancienne, plus le texte nouveau. Si l'on se place dans cette dernière hypothèse, on suppose donc que l'on a un programme capable de créer une nouvelle grammaire de texte à partir d'une première grammaire quelconque et d'un texte quelconque. On désirerait alors introduire quelques contraintes sur cette opération (quels textes accepter, quelles limites placer sur le processus de synthèse ...) et c'est cette spécification des contraintes qui constituerait le modèle de la pensée de Levi-Strauss.

Ainsi nous sommes en train d'essayer de construire un modèle pour tous les mythes du "cru et le cuit" par une méthode plus puissante que celle que nous avons utilisée auparavant.

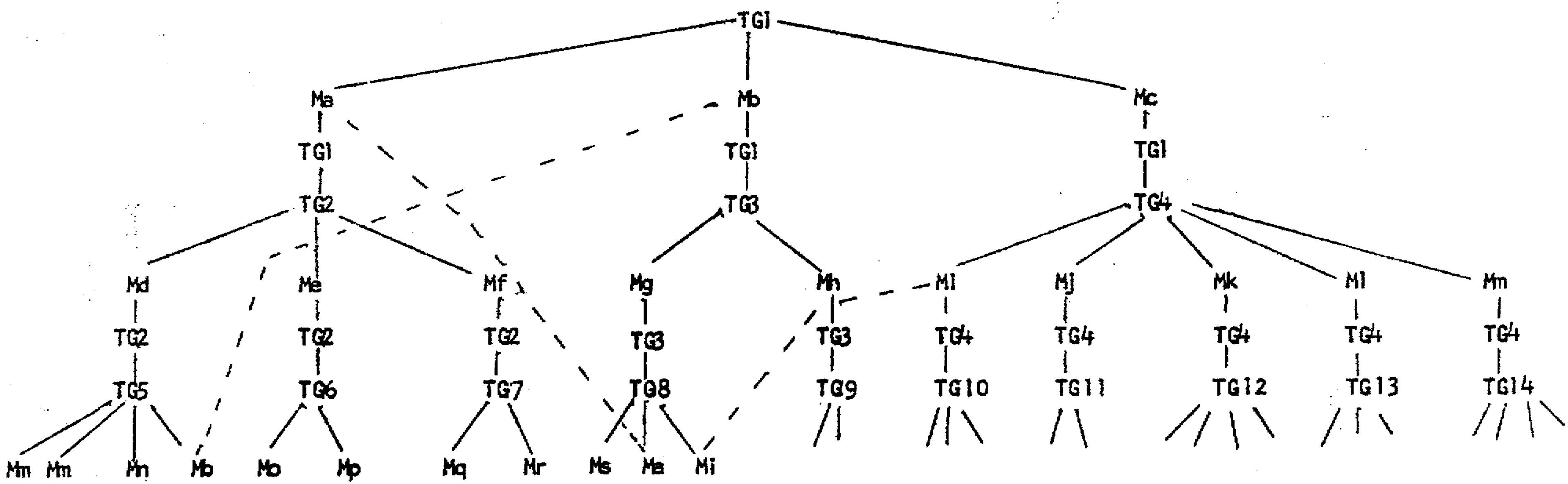
Le principe consiste à construire non pas une grammaire de texte, mais une arborescence hiérarchisée (voir un réseau) de telles grammaires au moyen d'un programme automatique permettant l'apprentissage de grammaires. On construit tout d'abord une seule grammaire pour un groupe de mythes très voisins (dans ce qui suit 'TG' représente les grammaires de texte et 'M' les mythes) :



Une copie séparée de cette grammaire est associée à chacun des mythes utilisés pour sa création. Chacune de ces copies peut maintenant servir de point de départ pour obtenir une nouvelle grammaire après confrontation à un nouveau groupe de mythes :



Le même processus est ensuite répété pour chacune des nouvelles branches de l'arbre et ainsi de suite, suivant ce que les données et les considérations heuristiques indiquent. Le résultat ne se présente pas nécessairement sous la forme d'un arbre, les mêmes mythes pouvant être mis à contributions à plusieurs reprises :



TG1
Ma
Mb
Mc
TG1
TG1
TG1
TG2
TG3
TG4
Md
Me
Mf
Mg
Mh
Mi
Mj
Mk
Ml
Mm
TG2
TG2
TG2
TG3
TG3
TG4
TG4
TG4
TG4
TG4
TG5
TG6
TG7
TG8
TG9
TG10
TG11
TG12
TG13
TG14
Mm
Mm
Mn
Mb
Mo
Mp
Mq
Mr
Ms
Ma
Mi

- *FIGURE A* -

Le suivi du travail de ce programme d'apprentissage analytique fournirait automatiquement la liste des transformations de type de Levi-Strauss.

Nous pensons savoir comment rendre automatique le processus de base et y travaillons actuellement. Ce que nous espérons toujours saisir est la nature des heuristiques utilisées par Levi-Strauss pour choisir les textes à associer pour créer de nouvelles grammaires de textes, et choisir leur ordre de succession. Pour le moment, nous pensons pouvoir reproduire le processus en acceptant comme données les groupements de mythes et l'ordre de succession de ceux-ci tels qu'ils sont fournis par Levi-Strauss. Nous ne pouvons qu'espérer découvrir la méthode sous-jacente au choix de cet ordre de succession par la création de programmes d'évaluation qui pourraient éventuellement reproduire ces choix en matière de sélection de mythes.

9.0. Appendice : MODELE DE LA GENERATION AUTOMATIQUE DE PROPP ET SORTIES DU PROGRAMME.

Le fait qu'un item lexical et une relation soient inclus dans le modèle n'est pas inhérent au modèle.

Les codes numériques associés aux règles notées en 10.4 marquent les liens entre les entités sémantiques et les structures de phrases et indiquent les types de transformation. Toutes les transformations ne sont pas notées. On peut les déduire des textes engendrés par le programme.

De même, on n'a pas donné le lexique muni de ses codes grammaticaux représentés par des vecteurs binaires.

Dans les histoires reproduites, on n'a porté que peu d'attention au traitement des pronoms. Ceci a été fait plus complètement dans d'autres travaux (Klein, 1965b).

```
$NODES;
THAT            3 = 'THAT'
MX              0 =
LST             0 =
ULST            0 =
ABILITY         2 = 'ABILITY' ;
AID             2 = 'AID' ;
ALIOSHA         0 = 'ALIOSHA' ;
ANIMALS         3 = 'ANIMAL' ;
ARM             0 = 'ARM' ;
BABADAUGH       0 = ;
BABAYAGA        0 = 'BABAYAGA' ;
BALDAK          0 = 'BALDAK' ;
BALL            0 = 'BALL' ;
BALLOFTHREAD    0 = ;
BARN            2 = 'BARN' ;
BEAR            2 = 'BEAR' ;
BEARSFATHER     2 = ;
BEGGAR          0 = 'BEGGAR' ;
BERENNIKOVS     3 = 'BERENNIKOV' ;
BIRD            4 = 'BIRD' ;
BIRTH           0 = 'BIRTH' ;
BLACKSMITHS     1 = 'BLACKSMITH' ;
BLOODYTRACKS    0 = ;
BONES           3 = 'BONE' ;
BONES1          1 = 'BONE' ;
BORIS           0 = 'BORIS' ;
BORISIEVICHS    3 = 'BORISIEVICH' ;
BRIDE           4 = 'BRIDE' ;
BULL            4 = 'BULL' ;
CARDS           5 = 'CARD' ;
CATTLE          3 = 'CATTLE' ;
CERTAINKINGDOM  0 = 'CERTAIN KINGDOM' ;
CLEVERNESS      5 = 'CLEVERNESS' ;
COMPETITION     0 = 'COMPETITION' ;
COW             0 = 'COW' ;
CROPS           1 = 'CROP' ;
DAUGHTER        2 = 'DAUGHTER' ;
DAYLIGHT        2 = 'DAYLIGHT' ;
DEATH           0 = 'DEATH' ;
DEVIL           0 = 'DEVIL' ;
DIPPER          0 = 'DIPPER' ;
DISAPPEARANCE   2 = 'DISAPPEARANCE' ;
DISPOF          0 = ;
DISPOSAL        2 = 'DISPOSAL' ;
DISPOSOF        0 = ;
DISTANTPROVINCE 0 = ;
DISPUTAN        3 = 'DISPUTANT' ;
DISPUTE         2 = 'DISPUTE' ;
DRAGON          0 = 'DRAGON' ;
DRAGONWIFE      3 = ;
DUNIA           0 = 'DUNIA' ;
EATEN           0 = 'EATEN' ;
EGGOFDEATH      2 = 'EGG OF DEATH' ;
ELENA           0 = 'ELENA' ;
EMELYA          0 = 'EMELYA' ;
EREMA           0 = 'EREMA' ;
EXCHANGE        0 = 'EXCHANGE' ;
EYE             0 = 'EYE' ;
FALCON          0 = 'FALCON' ;
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FATHER          2 = 'FATHER' ;
FEMALE          0 = ;
FIELD           4 = 'FIELD' ;
FIELDS          3 = 'FIELD' ;
FIREBIRD        0 = 'FIREBIRD' ;
FLIGHT          2 = 'FLIGHT' ;
FOMA            0 = 'FOMA' ;
FOREST          2 = 'FOREST' ;
FORESTHUT       0 = 'FOREST HUT' ;
FORESTKN        0 = 'FOREST KNIGHT' ;
FOX             0 = 'FOX' ;
FRIEND          0 = 'FRIEND' ;
* F1 THROUGH F19 ARE USED AS CLASS SUBSCRIPTS, AS SUBSCRIPTS
* CANNOT BE INTEGERS.
F1              0 = ;
F2              0 = ;
F3              0 = ;
F4              0 = ;
F5              0 = ;
F6              0 = ;
F7              0 = ;
F8              0 = ;
F9              0 = ;
F10             0 = ;
F11             0 = ;
F12             0 = ;
F13             0 = ;
F14             0 = ;
F15             0 = ;
F16             0 = ;
F17             0 = ;
F18             0 = ;
F19             0 = ;
GARDEN          2 = 'GARDEN' ;
GIANT           0 = 'GIANT' ;
GOLD            0 = 'GOLD' ;
GOLDDUCK        0 = 'GOLD DUCK' ;
GOOSE           0 = 'GOOSE' ;
GRAVE           0 = 'GRAVE' ;
GUSLA           0 = 'GUSLA' ;
HEART           2 = 'HEART' ;
HEDGEHOG        0 = 'HEDGEHOG' ;
HELP            0 = 'HELP' ;
HIDING          0 = 'HIDING' ;
HIMSELF         0 = 'HIMSELF' ;
HERSELF         0 = 'HERSELF' ;
HOME            2 = 'HOME' ;
HORSE           0 = 'HORSE' ;
HOUSE           2 = 'HOUSE' ;
HUSBAND         4 = 'HUSBAND' ;
HUT             2 = 'HUT' ;
INSTRUCTIONS    3 = 'INSTRUCTION' ;
INTERDICT       0 = ;
IT              0 = 'IT' ;
IVAN            0 = 'IVAN' ;
JUG             0 = 'JUG' ;
KATRINA         0 = 'KATRINA' ;
KILLED          0 = 'KILLED' ;
KINGDOM         0 = 'KINGDOM' ;
LADY            4 = 'LADY' ;
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LAKE            0 = 'LAKE' ;
LAMENT          0 = 'LAMENT' ;
LAND            2 = 'LAND' ;
LEATHERSTRAPS   5 = 'LEATHER STRAP' ;
LEG             0 = 'LEG' ;
LOCATIO         2 = 'LOCATION' ;
MAGBIRD         0 = 'MAGIC BIRD' ;
MAGBOW          0 = 'MAGIC BOW' ;
MAGBOX          0 = 'MAGIC BOX' ;
MAGCARPET       0 = 'MAGIC CARPET' ;
MAGCOW          0 = 'MAGIC COW' ;
MAGEGG          0 = 'MAGIC EGG' ;
MAGFLINT        0 = 'MAGIC FLINT' ;
MAGHEN          0 = 'MAGIC HEN' ;
MAGICPIN        0 = 'MAGIC PIN' ;
MAGKEY          0 = 'MAGIC KEY' ;
MAGPOTION       0 = 'MAGIC POTION' ;
MAGRING         0 = 'MAGIC RING' ;
MAGRING2        0 = 'MAGIC RING' ;
MAGSTEED        0 = 'MAGIC STEED' ;
MAGSWORD        0 = 'MAGIC SWORD' ;
MAGWAFER        0 = 'MAGIC WAFER' ;
MAGWORDS        0 = 'MAGIC WORD' ;
MALE            0 = ;
MAN             0 = 'MAN' ;
MARCO           0 = 'MARCO' ;
MARIA           0 = 'MARIA' ;
MARTHA          0 = 'MARTHA' ;
MEAL            0 = 'MEAL' ;
MEAT            0 = 'MEAT' ;
MERCY           0 = 'MERCY' ;
MOREVNAS        3 = 'MOREVNA' ;
MOTHER          2 = 'MOTHER' ;
MOUNTAIN        0 = 'MOUNTAIN' ;
MURDEROF        0 = ;
MYDEATH         0 = ;
MYWISDOM        0 = ;
NFAMILY         2 = 'FAMILY' ;
NFIGHT          4 = 'FIGHT' ;
NICHOLAS        0 = 'NICHOLAS' ;
NIGHT           0 = 'NIGHT' ;
NIGHTS          5 = 'NIGHT' ;
NMURDER         2 = 'MURDER' ;
OBJECT          0 = 'OBJECT' ;
OLDLADY         4 = ;
OLDMAN          0 = 'OLD MAN' ;
OTHERTREE       0 = ;
PARANOVS        3 = 'PARANOV' ;
PERMISSION      0 = 'PERMISSION' ;
PLACE           2 = 'PLACE' ;
POPOVICHS       3 = 'POPOVICH' ;
PRISONER        0 = 'PRISONER' ;
PROVINCE        0 = 'PROVINCE' ;
QUESTION        0 = 'QUESTION' ;
RATS            5 = 'RAT' ;
REPLACEMENT     0 = ;
RIVER           0 = 'RIVER' ;
ROCK            0 = 'ROCK' ;
SEA             2 = 'SEA' ;
SEARCH          0 = 'SEARCH' ;
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SEED            0 = 'SEED' ;
SHEEP           3 = 'SHEEP' ;
SHIP            0 = 'SHIP' ;
SLEEPINGPOTION  0 = 'SLEEPING POTION' ;
SON             2 = 'SON' ;
SPELL           0 = 'SPELL' ;
SPELLON         0 = ;
STAIRWAY        0 = 'STAIRWAY' ;
STEAMBATH       4 = 'STEAMBATH' ;
STOVE           0 = 'STOVE' ;
SUBSTITUTION    2 = 'SUBSTITUTION' ;
SUPERSPEED      0 = 'INCREDIBLE SPEED' ;
SUPSTREN        0 = 'SUPER-HUMAN STRENGTH' ;
SWEETOLLADY     4 = ;
SWIM            4 = 'SWIM' ;
TASK            0 = ;
TEMPTATION      2 = 'TEMPTATION' ;
THEM            5 = 'THEM' ;
THEY            5 = 'THEY' ;
THREAD          0 = 'THREAD' ;
TIME            2 = 'TIME' ;
TOWN            2 = 'TOWN' ;
TRACK           3 = 'TRACK' ;
TRANSFORMABILITY 0 = 'TRANSFORMABILITY' ;
TREE            0 = 'TREE' ;
TRESP           0 = ;
TUNNEL          0 = 'TUNNEL' ;
VASILISA        0 = 'VASILISA' ;
VILLAGER        0 = 'VILLAGER' ;
VILLAGR2        0 = 'VILLAGER' ;
VLADIMIR        0 = 'VLADIMIR' ;
WAR             0 = 'WAR' ;
WARON           0 = ;
WAY             2 = 'WAY' ;
WEALTH          0 = 'WEALTH' ;
WELL            0 = 'WELL' ;
WISDOM          0 = 'WISDOM' ;
WITCH           0 = 'WITCH' ;
WIVES           1 = 'WIFE' ;
WOLF            0 = 'WOLF' ;
WOLFPACK        2 = 'WOLF PACK' ;
WOODS           3 = 'WOOD' ;
YEARS           5 = 'YEAR' ;
YOUNGMAN        4 = ;
YOURDEATH       0 = ;
YOURWISDOM      0 = ;
$RELATIONS;
XX              A 2 0 =
ABDUCT          I 3 0 = 'ABDUCT'
AFTER           I 4 0 = 'AFTER'
AGAIN           A 6 1 = 'AGAIN' ;
AGREE           A 3 0 = 'AGREE'
ALLURING        A 2 0 = 'ALLURING' ;
ALONE           A 2 0 = 'ALONE' ;
ALONG           I 4 0 = 'ALONG'
ALSO            A 6 0 = 'ALSO'
ANNOUNC         I 3 2 = 'ANNOUNCE'
ANSWER          I 3 0 = 'ANSWER'
APPEAR          A 3 0 = 'APPEAR'
APPEARIN        I 3 0 = ;
.
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263        .
264        .
265        APPEARZ              I 3 0 = 'APPEAR'
266        APPEARTO             I 3 0 =
267        AS                   I 4 0 = 'AS'
268        ASK                  A 3 0 = 'ASK'
269        ASK1                 I 3 0 = 'ASK' ;
270        ASKFOR               I 3 0 =
271        ASLEEP               A 2 0 = 'ASLEEP' ;
272        AT                   I 4 0 = 'AT'
273        ATTEMPT              A 3 0 = 'ATTEMPT'
274        AVOID                A 3 1 = 'AVOID' ;
275        AWAKE                A 6 1 = 'AWAKE' ;
276        AWAY                 A 6 1 = 'AWAY' ;
277        AWAYFROM             I 3 0 =
278        BACK                 I 4 0 = 'BACK'
279        BADLY                A 6 0 = 'BAD'
280        BE                   A 3 0 = 'BE' ;
281        BE1                  A 3 0 = 'BE' ;
282        BEHEADING            A 3 0 = 'BEHEAD' ;
283        BEHIDDEN             A 2 0 = ;
284        BEING                I 3 0 = 'BE'
285        BERRYGATHER          A 3 4 = 'BERRY GATHER' ;
286        BESIDE               I 4 0 = 'BESIDE' ;
287        BLOCK                A 3 0 = 'BLOCK' ;
288        BLOODY               A 2 0 = 'BLOOD' ;
289        BRAVE                A 2 0 = 'BRAVE' ;
290        BRAWL                A 3 0 = 'BRAWL'
291        BROKEN               A 2 0 = 'BREAK' ;
292        BURY                 A 3 0 = 'BURY' ;
293        BY                   I 4 0 = 'BY'
294        BY1                  A 4 0 = 'BY' ;
295        CALL                 I 3 0 = 'CALL' ;
296        CALLFOR              I 3 0 =
297        CAST                 I 3 0 = 'CAST' ;
298        CASTSPELLON          I 3 0 =
299        CAUGHT               A 2 0 = 'CATCH' ;
300        CAUSE                I 3 0 = 'CAUSE' ;
301        CAUSEDISPOF          I 3 0 =
302        CERTAIN              A 2 0 = 'CERTAIN' ;
303        CHANGE               I 3 0 = 'CHANGE' ;
304        CHANGE1              A 3 0 = 'CHANGE' ;
305        CHASE                A 3 0 = 'CHASE'
306        CHILDLESS            A 2 0 = 'CHILDLESS' ;
307        CLIMB                I 3 0 = 'CLIMB'
308        COME                 A 3 0 = 'COME'
309        CONSUME              I 2 0 = 'CONSUME' ;
310        CONSUMEDBY           I 2 0 =
311        CRAWL                I 3 0 = 'CRAWL' ;
312        CRAWLTHROUGH         I 3 0 =
313        CUT                  I 3 0 = 'CUT' ;
314        CUTOFF               I 3 0 =
315        CUTOUT               I 3 0 =
316        DECIDE               A 3 0 = 'DECIDE'
317        DECLARE              I 3 0 = 'DECLARE' ;
318        DECLAREWARON         I 3 0 =
319        DEFEAT               I 3 0 = 'DEFEAT'
320        DEFEATED             A 2 0 = 'DEFEAT' ;
321        DEMAND               I 3 0 = 'DEMAND'
322        DESCEND              I 3 0 = 'DESCEND' ;
323        DESCENDBYUSING       I 3 0 =
324        DEVOUR               I 3 0 = 'DEVOUR'
325        .
326        .
327        .
328        .
```

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329        .
330        .
331        DIE                  A 3 0 = 'DIE'
332        DIRECT               I 2 0 = 'DIRECT' ;
333        DIRECTEDBY           I 2 0 =
334        DISCOVER             I 3 0 = 'DISCOVER' ;
335        DISTANT              A 2 0 = 'DISTANT' ;
336        DIVIDE               I 3 0 = 'DIVIDE' ;
337        DISGUIS              I 3 0 = 'DISGUISE'
338        DONOT                A 3 3 = 'DO NOT'
339        DROWNING             A 3 0 = 'DROWN' ;
340        DYING                A 2 0 = 'DIE' ;
341        EAT                  A 3 0 = 'EAT' ;
342        EAT1                 I 3 0 = 'EAT' ;
343        ENGAGE               A 3 0 = 'ENGAGE'
344        ENTICED              A 2 0 = 'ENTICE' ;
345        ESCAPE               A 3 0 = 'ESCAPE'
346        EXPEL                I 3 0 = 'EXPEL'
347        FAIL                 A 3 0 = 'FAIL'
348        FAIRLY               A 6 0 = 'FAIR'
349        FALL                 A 3 0 = 'FALL' ;
350        FALLASLEEP           A 3 0 =
351        FEED                 A 3 0 = 'FEED' ;
352        FEEDINGTORATS        A 3 0 = ;
353        FIGHT                A 3 0 = 'FIGHT'
354        FIGHTNG              I 2 0 = 'FIGHT' ;
355        FIGHTINGWITH         I 2 0 =
356        FIND                 I 3 0 = 'FIND'
357        FISH                 A 3 4 = 'FISH' ;
358        FLY                  A 3 0 = 'FLY'
359        FLY2                 I 3 0 = 'FLY' ;
360        FLYINTO              I 3 0 = ;
361        FLYON                I 3 0 =
362        FOLLOW               I 3 0 = 'FOLLOW'
363        FOR                  I 4 0 = 'FOR'
364        FORGET               I 3 0 = 'FORGET' ;
365        FOUND                I 2 0 = 'FIND' ;
366        FOUNDBY              I 2 0 =
367        FREE                 I 3 0 = 'FREE'
368        FREED                A 2 0 = 'FREE' ;
369        FREEDFROMSPELL       A 2 0 = ;
370        FROM                 I 4 0 = 'FROM'
371        GATHER               I 3 0 = 'GATHER' ;
372        GIVEN                I 2 0 = 'GIVE' ;
373        GIVENTO              I 2 0 =
374        GNAW                 A 3 0 = 'GNAW'
375        GOBERRYGATHER        A 3 0 = ;
376        GOFISH               A 3 0 = ;
377        GO                   I 3 0 = 'GO'
378        GOTO                 I 3 0 = ;
379        GOTOFOREST           A 3 0 = ;
380        GOTOWAR              A 3 0 = ;
381        GOTRADE              A 3 0 = ;
382        GOVISIT              A 3 0 = ;
383        GOWALK               A 3 0 = ;
384        GOWORK               A 3 0 = ;
385        GREET                I 3 0 = 'GREET'
386        HATE                 I 3 0 = 'HATE' ;
387        HAVE                 I 3 0 = 'HAVE'
388        HAVE1                A 3 0 = 'HAVE' ;
389        HER                  A 2 0 = 'HER' ;
390        HIDDEN               A 2 0 = 'HIDE' ;
391        .
392        .
393        .
394        .
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395        .
396        .
397        HIDE                 A 3 0 = 'HIDE' ;
398        HIS                  A 2 0 = 'HIS' ;
399        HORRIBLY             A 6 1 = 'HORRIBLE' ;
400        IMPRISN              I 3 0 = 'IMPRISON'
401        IMPRISONED           A 2 0 = 'IMPRISON' ;
402        IN                   I 4 0 = 'IN'
403        INJURE               I 3 0 = 'INJURE'
404        INTO                 I 4 0 = 'INTO'
405        INTOLEAVING          I 4 0 =
406        IS                   I 3 0 = 'BE'
407        ISCHILDOF            I 3 0 =
408        JUMP                 A 3 0 = 'JUMP' ;
409        KILL                 A 3 0 = 'KILL'
410        KILL1                I 3 0 = 'KILL' ;
411        LEAVE                A 3 0 = 'LEAVE'
412        LEAVE1               I 3 0 = 'LEAVE' ;
413        LED                  I 2 0 = 'LEAD' ;
414        LEDBY                I 2 0 =
415        LISTEN               A 3 0 = 'LISTEN' ;
416        LIVE                 I 3 0 = 'LIVE'
417        LIVEIN               I 3 0 =
418        MARRY                A 3 0 = 'MARRY' ;
419        MEET                 I 3 0 = 'MEET'
420        MIRACULOUS           A 2 0 = 'MIRACULOUS' ;
421        MURDER               I 3 0 = 'MURDER'
422        MY                   A 2 0 = 'MY' ;
423        NEED                 I 3 0 = 'NEED'
424        NOGOTO               I 3 0 =
425        NOLEAVE              I 3 0 =
426        NOT1                 A 6 1 = 'NOT' ;
427        OBTAIN               I 3 0 = 'OBTAIN'
428        OBTAINED             A 2 0 = 'OBTAIN' ;
429        OF                   I 4 0 = 'OF'
430        OFF                  A 4 0 = 'OFF' ;
431        OFFER                I 3 0 = 'OFFER'
432        OFFERED              I 2 0 = 'OFFER' ;
433        OFFEREDTO            I 2 0 =
434        OLD                  A 2 0 = 'OLD' ;
435        OLDEST               A 2 0 = 'OLDEST' ;
436        ON                   I 4 0 = 'ON'
437        ONLY                 A 2 0 = 'ONLY' ;
438        OPEN                 A 2 0 = 'OPEN' ;
439        ORDER                I 3 0 = 'ORDER' ;
440        ORDERINTOSEA         I 3 0 =
441        ORDERMURDEROF        I 3 0 =
442        OTHER                A 2 0 = 'OTHER' ;
443        OUT                  A 4 0 = 'OUT' ;
444        OVER                 I 4 0 = 'OVER'
445        OWN                  I 3 0 = 'OWN' ;
446        PARTAKE              A 3 0 = 'PARTAKE' ;
447        PERSUADE             A 3 0 = 'PERSUADE'
448        PERSUAD2             I 3 0 = 'PERSUADE'
449        PILLAGE              I 3 0 = 'PILLAGE'
450        PLACED               I 2 0 = 'PLACE' ;
451        PLACEDATDISPOF       I 3 0 =
452        PLAY                 I 3 0 = 'PLAY'
453        PLUCK                I 3 0 = 'PLUCK' ;
454        PLUCKOUT             I 3 0 =
455        PLUNDER              I 3 0 = 'PLUNDER'
456        POS                  I 5 0 = ;
457        .
458        .
459        .
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461        .
462        .
463        PREPARD              A 2 0 = 'PREPARE' ;
464        PREPAPE              I 2 0 = 'PREPARE' ;
465        PREPAREDFOR          I 2 0 =
466        PRESPOND             I 3 0 = 'RESPOND'
467        PRODUCED             A 2 0 = 'PRODUCE' ;
468        PROPOSE              I 3 0 = 'PROPOSE'
469        PRSUADED             A 2 0 = 'PERSUADE' ;
470        PULL                 I 3 0 = 'PULL' ;
471        PULLOFF              I 3 0 =
472        PURSUE               I 3 0 = 'PURSUE'
473        RAND                 I 0 0 = ;
474        RAND1                A 0 0 =   'AND' ;
475        RECONCIL             I 3 0 = 'RECONCILE'
476        REFUSE               A 3 0 = 'REFUSE'
477        REPEL                I 3 0 = 'REPEL'
478        REPLACED             A 2 0 = 'REPLACE' ;
479        REPLACE              I 3 0 = 'REPLACE'
480        REQUEST              I 3 0 = 'REQUEST'
481        RESPOND              A 3 0 = 'RESPOND'
482        RETURN               I 3 0 = 'RETURN'
483        REVIVED              A 2 0 = 'REVIVE' ;
484        RNULL                I 7 0 = ;
485        ROASTING             A 3 0 = 'ROAST' ;
486        RUDELY               A 6 1 = 'RUDE' ;
487        SAME                 A 2 0 = 'SAME' ;
488        SAY                  A 3 0 = 'SAY' ;
489        SAY2                 I 3 5 = 'SAY'
490        SEARCH1              A 3 0 = 'SEARCH' ;
491        SEARCHFOR            I 3 0 =
492        SECRETLY             A 6 0 = 'SECRET' ;
493        SEIZED               A 2 0 = 'SEIZE' ;
494        SEIZEDBY             I 2 0 =
495        SEIZE                I 3 0 = 'SEIZE'
496        SEND                 I 3 0 = 'SEND'
497        SHOW                 I 3 0 = 'SHOW'
498        SHOWN                I 2 0 = 'SHOW' ;
499        SHOWNTHEREBY         I 3 0 =
500        SHOWNTO              I 3 0 =
501        SIT                  A 3 0 = 'SIT' ;
502        SNEAK                I 3 0 = 'SNEAK'
503        SNEAKINTO            I 3 0 = ;
504        SOLD                 I 2 0 = 'SELL' ;
505        SOLDTO               I 3 0 =
506        SPEND                I 3 1 = 'SPEND' ;
507        START                A 3 0 = 'START'
508        STAY                 A 3 0 = 'STAY' ;
509        STEP                 A 2 0 = 'STEP' ;
510        SUDDENLY             A 6 1 = 'SUDDEN' ;
511        SUNG                 A 2 0 = 'SING' ;
512        SURPRISE             I 3 0 = 'SURPRISE'
513        SWEET                A 6 0 = 'SWEET' ;
514        SWEETOLD             A 2 0 = ;
515        TAKEAWAY             I 3 0 =
516        TAKE                 I 3 0 = 'TAKE'
517        TEMPT                I 3 0 = 'TEMPT'
518        THIRD                A 2 0 = 'THIRD' ;
519        THREATEAT            I 3 0 =
520        THREATEN             I 3 0 = 'THREATEN' ;
521        THREATNED            A 2 0 = 'THREATEN' ;
522        THREATTOMARRY        I 3 0 =
523        .
524        .
525        .
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.
THREE           A 2 0 - 'THREE' ;
THROUGH         I 4 0 - 'THROUGH'          ;
TO              I 4 2 - 'TO'               ;
TO1             A 4 2 - 'TO' ;
TOIL            A 3 0 - 'TOIL' ;
TORMENT         I 3 0 - 'TORMENT' ;
TOWARD          I 4 0 - 'TOWARD'           ;
TRADE           A 3 0 -  'TRADE';
TRAVEL          A 3 0 - 'TRAVEL'           ;
TRAVEL1         I 3 0 - 'TRAVEL' ;
TRAVELBY        I 3 0 -                    ;
TRAVELON        I 3 0 -                    ;
TRAVELTO        I 3 0 -                    ;
TRICKV          I 3 0 - 'TRICK'            ;
TROUNCED        A 2 0 - 'TROUNCE' ;
TRY             A 3 0 - 'TRY'
TWICE           A 6 0 - 'TWICE'            ;
UNLUCKY         A 2 0 - 'UNLUCKY' ;
UNPROTECTED     A 2 1 - 'UNPROTECTED'
USE             I 3 0 - 'USE'
USING           I 4 0 - 'USING' ;
VISIT           A 3 4 - 'VISIT' ;
WALK            A 3 4 - 'WALK' ;
WALKSIN         I 3 0 - 'WALK'
WALKINTO        I 3 0 - ;
WANDERING       A 2 0 - 'WANDER' ;
WHERE           I 4 1 - 'WHERE' ;
WHEREIS         I 4 1 -
WHICH           I 4 0 - 'WHICH' ;
WHILE           I 4 0 - 'WHILE' ;
WHILE1          A 4 0 - 'WHILE' ;
WHO             I 4 3 - 'WHO' ;
WHOOWN          I 4 3 -
WICKED          A 2 0 - 'WICKED';
WIN             A 3 0 - 'WIN'
WITH            I 4 0 - 'WITH'
WITHOUT         I 4 0 - 'WITHOUT'
WITHOUT1        A 4 0 - 'WITHOUT' ;
WORK            A 3 0 -  'WORK' ;
WOUNDED         A 2 0 - 'WOUND' ;
YELL            A 3 0 - 'YELL'
YOUNG           A 2 0 - 'YOUNG' ;
YOUR            A 2 0 - 'YOUR' ;
$
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$CLASSES;
ABSENTOR = ;
ADIFF = F6 F10 F12 F18 ;
AFORM = ;
AFORMS = F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F13 F14 F15 F16 F17 F18 F19;
AFORMTMP = ;
AOBFORMS = F2 F3 F4 F5 F6 ;
AOBJ(F10) = SEA;
AOBJ(F18) = NIGHT;
3 AREL(F1)  = ABDUCT;
3 AREL(F2)  = SEIZE;
3 AREL(F3)  = PILLAGE;
3 AREL(F4)  = SEIZE;
3 AREL(F5)  = PLUNDER;
3 AREL(F6)  = INJURE;
3 AREL(F7)  = CAUSEDISPOF ;
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.
3 AREL(F8)   = DEMAND;
3 AREL(F9)   = EXPEL;
3 AREL(F10)  = ORDER ;
3 AREL(F11)  = CASTSPELLON ;
3 AREL(F12)  = REPLACE;
3 AREL(F13)  = ORDERMURDEROF ;
3 AREL(F14)  = MURDER;
3 AREL(F15)  = IMPRISN;
3 AREL(F16)  = THREATTOMARRY ;
3 AREL(F17)  = THREATEAT ;
3 AREL(F18)  = TORMENT ;
3 AREL(F19)  = DECLAREWARON ;
3 AREL2(F10) = INTO;
3 AREL2(F18) = AT;
3 ARRIVALS   = FLYINTO APPEARIN SNEAKINTO WALKINTO ;
BETAFORM = ;
2 BETAREL(F1)   = LEAVE ;
2 BETAREL(F2)   = DIE;
2 BETAREL(F3)   = LEAVE ;
BETRAYER = ;
BFORM = ;
BFORMS = F1 F2 F3 F4 ;
BFORMSLACK = F2 F3 ;
BODPARTS = ARM LEG EYE HEART ;
CHARTMP =  ;
CHILD(MALE) = SON ;
CHILD(FEMALE) = DAUGHTER ;
COBJ = ;
DEAD = ;
3 DELTAREL =   ;
DFORM  = ;
DFORMS = F1 F2 F3 F4 F5 F6 F8 F9 F10 ;
DISGUISES =  BIRD YOUNGMAN SWEETOLLADY ;
DISPATCHER = ;
DISTYPE = ;
DISTYPES = BONES1  SHEEP ;
DNFORMS = F1 F2 F3 F9 ;
DONOR = ;
DONORS = WITCH FORESTKN COW DEVIL JUG GIANT OLDMAN BULL ;
DOBJ(F1) =WITCH FORESTKN STOVE ;
DOBJ (F2) = ;
DOBJ(F3) =  COW MAN ;
3 DREL(F1)   = PROPOSE ;
3 DREL(F3)   = ASK1  ;
DRESPS = FORESTKN STOVE COW MAN  ;
DTRYS = WITCH ;
EPSFORM = ;
EPSFORMS = F1 F2 ;
EPSOBJECT = ;
FAMILY = ;
FAMNAM = ;
FAMTMP = ;
FEMALES = MARTHA KATRINA MARIA ELENA DONIA VASILISA ;
FFORM = ;
FOFD(F1) = F1 F2 F3 F4 F5 F6 F8 F9  ;
FOFD(F2) = F1 F2 F4 ;
FOFD(F3) = F1 F5 F6 ;
FOFD(F4) = F1 F2 F5 F8 F9  ;
FOFD(F5) = F1 F2 F5 F6 F9  ;
FOFD(F8) = F5 F8 ;
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FOFD(F9) = F1 F2 F9 ;
3 FREL(F1) = GIVENTO          ;
3 FREL(F2) = SHOWNTO           ;
3 FREL(F3) = PREPAREDFOR      ;
3 FREL(F4) = SOLDTO           ;
3 FREL(F5) = FOUNDBY          ;
3 FREL(F6) = APPEARTO           ;
3 FREL(F7) = CONSUMEDBY       ;
3 FREL(F8) = SEIZEDBY         ;
3 FREL(F9) = PLACEDATDISPOF     ;
GAMFORM = ;
GAMFORMS = F1 F2 ;
3 GAMGO(F1)   = NOGOTO ;
3 GAMGO(F2)   = GO;
3 GAMLEV(F1)   = NOLEAVE ;
3 GAMLEV(F2)   = LEAVE1 ;
GENDER() = ;
GFORM = ;
GHELPER = ;
GHELPERS(F2) = HORSE SHIP ;
GHELPERS(F3) = BALLOFTHREAD FOX ;
GHELPERS(F4) = HEDGEHOG BEGGAR ;
GHELPERS(F5) = STAIRWAY TUNNEL LEATHERSTRAPS ;
GMFORMS(MAGSTEED) = F1 F2 ;
GMFORMS(MAGCARPET) = F1 ;
GMFORMS(MAGBIRD) = F1 ;
GMFORMS(FLIGHT) = F1 ;
GMFORMS(SUPERSPEED) = F2 ;
GNMFORMS = F2 F3 F4 F5 ;
3 GREL(F1) = TRAVELBY ;
3 GREL(F2) = TRAVELON ;
3 GREL(F3) = LEDBY;
3 GREL(F4) = DIRECTEDBY;
3 GREL(F5) = ;
3 GREL(F6) = FOLLOW;
3 GREL2(TUNNEL) = CRAWLTHROUGH;
3 GREL2(STAIRWAY) = CLIMB;
3 GREL2(LEATHERSTRAPS) = DESCENDBYUSING;
GTRANS = ;
HERO = ;
HFORM = ;
HFORMS = F1 F2 F3 ;
IFORM = ;
3 INJUR(ARM)    = PULLOFF ;
3 INJUR(EYE)    = PLUCKOUT ;
3 INJUR(HEART)   = CUTOUT ;
3 INJUR(LEG)    = CUTOFF ;
KFFORM = ;
KFFORMS = F1 F2 F4 F5 F6 F8 ;
KFORM = ;
KFORMS(F1) = F1 F4   F10 F11 ;
KFORMS(F2) = F1 F4   F11 ;
KFORMS(F3) = F7 ;
KFORMS(F4) = F1 F4 F11 ;
KFORMS(F5) = F7 ;
KFORMS(F6) = F1 F4 F11 ;
KFORMS(F7) = F4    ;
KFORMS(F8) = F1 F4   F10 F11 ;
KFORMS(F9) = F4    ;
KFORMS(F10)= F4    ;
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KFORMS(F11)= F8 ;
KFORMS(F14)= F9 ;
KFORMS(F15) = F1 F4 F10 F11 ;
2 KILLMETH = ;
2 KILLMETS = ROASTING BEHEADING DROWNING FEEDINGTORATS ;
2 KREL(F1) = SEIZED;
2 KREL(F3) = ENTICED;
2 KREL(F4) = OBTAINED;
2 KREL(F7) = CAUGHT;
2 KREL(F8) = FREEDFROMSPELL;
2 KREL(F9) = REVIVED ;
2 KREL(F10) = FREED ;
KSFORMS(F1) = F3 F4  ;
KSFORMS(F2) = F4 ;
KSFORMS(F3) = F4 ;
KSFORMS(F4) = F4 ;
KSFORMS(F5) = F4 ;
LASTNAMS = BEREKNIKOVS PARANOVS POPOVICHS MOREVNAS BORISIRVICHS ;
LOCATIONS = CERTAINKINGDOM DISTANTPROVINCE ;
MAGANIM = MAGCOW MAGHEN MAGSTEED MAGBIRD ;
MAGCHANGS = MAGFLINT MAGRING ;
MAGFOOD = MAGPOTION MAGWAFER ;
MAGHELPKILL = ;
MAGHELPLIO = ;
MAGHELPORIG =  ;
MAGHELPS = ;
MAGHELP1 = ;
MAGHELP2 = ;
MAGHELP3 = ;
MAGKILLS = MAGSWORD MAGBOW ;
MAGLIOS = MAGHEN MAGBOX ;
MAGOBJS = MAGEGG MAGBOX MAGWORDS MAGKEY ;
MAGQUALS = SUPSTREN SUPERSPEED FLIGHT TRANSFORMABILITY ;
MAGTRANS = MAGSTEED MAGCARPET MAGBIRD ;
MAGRESCS = MAGTRANS ;
MALES = IVAN BORIS BALDAK ALIOSHA NICHOLAS MARCO FOMA ERBMA EMELYA
          VLADIMIR ;
MEMBER = ;
2 MOTIVE(F1) = GOWORK GOTOFOREST GOTRADE GOTOWAR ;
2 MOTIVE(F2) = HORRIBLY SUDDENLY ;
2 MOTIVE(F3) = GOVISIT GOFISH GOWALK GOBERRYGATHER ;
MOKILLS = MAGSWORD MAGBOW SUPSTREN ;
MOTRANS = MAGSTEED MAGCARPET FLIGHT MAGBIRD SUPERSPEED ;
MORESCS = MOTRANS TRANSFORMABILITY ;
MOALL = MOTRANS MOKILLS MORESCS MAGLIOS ;
NUFORM = ;
NUFORMS  = F1 F2 ;
NVNFORMS = F1 F15 F16 F17 F18 F19 AOBFORMS ;
OWNER = ;
PARENT(FEMALE) = MOTHER ;
PARENT(MALE) = FATHER ;
PARENTS(MALE) = ;
PARENTS(FEMALE) = ;
PARENTVILLAIN = F9 F10 F11 F13 ;
PEOPLE = MALES FEMALES ;
PFORM = ;
PFORMS = F1 F2 F3 F4 F5 F6 F7 ;
PFORMSFAMVIL = F2 F3 F6;
PLACES = WOODS FIELDS HOUSE BARN TOWN HUT ;
PERPRON(BABAYAGA) = HERSELF;
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PERPRON(WOLF) = HIMSELF;
PERPRON(BEAR) = HIMSELF;
PERPRON(DRAGON) = HIMSELF;
POSPURSU(DRAGON) = DRAGONWIFE;
POSPURSU(BABAYAGA) = BABADAUGH;
POSPURSU(BEAR ) = BEARSFATHER ;
POSPURSU(WOLF) = WOLFPACK;
POSVILS = DRAGON BABAYAGA BEAR WOLF ;
2 PREL1(F1) = FLY;
2 PREL1(F2) = YELL;
2 PREL1(F3) = CHASE;
2 PREL1(F5) = ATTEMPT;
2 PREL1(F6) = ATTEMPT;
3 PREL2(F1) = AFTER;
3 PREL2(F2) = FOR;
3 PREL2(F3) = AFTER;
3 PREL2(F5) = DEVOUR;
3 PREL2(F6) = KILL1;
PURSUER = ;
QANS(YOURDEATH) = MYDEATH ;
QANS(YOURWISDOM) = MYWISDOM;
QOBJECT = ;
RHELP = ;
RSFORM = ;
RSFORMS(F1) = F1 F2 F4 F5 ;
RSFORMS(F2) = F1 F2 F4 F5 ;
RSFORMS(F3) = F1 F2 F4 F5 ;
RSFORMS(F4) = F7 ;
RSFORMS(F5) = F8 ;
RSFORMS(F6) = F9 ;
RSFORMS(F7) = F10 ;
RSHELPER(F1) = GOOSE FALCON;
RSHELPER(F2) = MOUNTAIN LAKE FOREST;
RSHELPER(F3) = ROCK WELL DIPPER;
RSHELPER(F4) = RIVER STOVE ROCK;
RSHELPER(F5) = BLACKSMITHS;
RSHELPER(F6) = HORSE FALCON SEED;
RSHELPER(F7) = TEMPTATION;
RSHELPER(F8) = EATEN;
RSHELPER(F9) = KILLED;
RSHELPER(F10)= OTHERTREE;
2 RSREL1(F1) = FLY;
2 RSREL1(F2) = BLOCK;
2 RSREL1(F3) = CHANGE1;
2 RSREL1(F4) = HIDE;
2 RSREL1(F5) = BEHIDDEN;
2 RSREL1(F6) = CHANGE1;
2 RSREL1(F7) = AVOID;
2 RSREL1(F8) = AVOID;
2 RSREL1(F9) = AVOID;
2 RSREL1(F10)= JUMP;
3 RSREL2(F1) = ON;
3 RSREL2(F2) = WITH;
3 RSREL2(F3) = INTO;
3 RSREL2(F4) = IN;
3 RSREL2(F5) = BY;
3 RSREL2(F6) = INTO;
3 RSREL2(F7) = RNULL;
3 RSREL2(F8) = IS;
3 RSREL2(F9) = IS;
.
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.
.
3 RSREL2(F10)= TO;
SAFORM = ;
SAFORMS = F1 F2 F3 F4 F5 ;
SAOBJ(F1) = ;
SAOBJ(F2) = MAGHEN MAGCOW MAGBOX ;
SAOBJ(F3) = FIREBIRD GOLDDUCK ;
SAOBJ(F4) = EGGOFDEATH ;
SAOBJ(F5) = WEALTH ;
SEEKER = ;
SEX = ;
SEXES = MALE FEMALE ;
SLOC = ;
SOBJECT = ;
STORYLOC = ;
THELP = F3 F6 ;
THETAFMS  =  F1 F2 ;
THETAFORM = ;
TRICK = ;
TRICKS(F1) = MAGRING STEAMBATH SWIM ;
TRICKS(F2) = SLEEPINGPOTION MAGICPIN ;
VICTIM = ;
VILLAIN = ;
VILNOTINFAMFORMS = F1 F2 F3 F4 F5 F8 F12 F15 F16 F18 F19;
VILPOSES = YOURDEATH YOURWISDOM ;
VILSOUGHT = F3 F5 F13 F16 F17 F18 F19 ;
VLOC = ;
VOBJECT = ;
VOBTMP(F2) = MAGOBJS MAGANIM ;
VOBTMP(F3) = CROPS ;
VOBTMP(F4) = DAYLIGHT ;
VOBTMP(F5) = CATTLE ANIMALS SHEEP ;
VOBTMP(F6) = HEART ARM LEG EYE ;
VPOSLOCS = MAGEGG ;
CHARACTERS = PEOPLE ;
$
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$NETWORK :
                *LEXTRP (TAKE AWAY) TO TAKEAWAY;
                *LEXTRP (FEED TO RATS) TO FEEDINGTORATS;
                *LEXTRP (OFFERED TO) TO OFFEREDTO;
                *LEXTRP (INTO LEAVE) TO INTOLEAVE;
                *LEXTRP (GIVEN TO) TO GIVENTO;
                *LEXTRP (SHOWN TO) TO SHOWNTO;
                *LEXTRP (PREPARE FOR) TO PREPAREDFOR;
                *LEXTRP (SOLD TO) TO SOLDTO;
                *LEXTRP (FOUND BY) TO FOUNDBY;
                *LEXTRP (CONSUME BY) TO CONSUMEDBY;
                *LEXTRP (SEIZED BY) TO SEIZEDBY;
                *LEXTRP (PLACED AT DISPOSOF) TO PLACEDATDISPOF
                *LEXTRP (DISPOSAL OF) TO DISPOSOF;
                *LEXTRP (APPEAR2 TO) TO APPEARTO;
                *LEXTRP (ABILITY TO FLY) TO FLIGHT;
                *LEXTRP (TRAVEL1 BY) TO TRAVELBY;
                *LEXTRP (TRAVEL1 ON) TO TRAVELON;
                *LEXTRP (LED BY) TO LEDBY;
                *LEXTRP (DIRECT BY) TO DIRECTEDBY;
                *LEXTRP (CRAWL THROUGH) TO CRAWLTHROUGH;
                *LEXTRP (DESCEND BY USING) TO DESCENDBYUSING;
                *LEXTRP (IS HIDDEN) TO BEHIDDEN;
                *LEXTRP (LADY OLD) TO OLDLADY;
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                *LEXTRP (MAN YOUNG) TO YOUNGMAN;
                *LEXTRP (DEATH MY) TO MYDEATH;
                *LEXTRP (WISDOM MY) TO MYWISDOM;
                *LEXTRP (WISDOM YOUR) TO YOURWISDOM;
                *LEXTRP (DEATH YOUR) TO YOURDEATH;
                *LEXTRP (FALL ASLEEP) TO FALLASLEEP;
                *LEXTRP (CAUSE ENULL DISPOF) TO CAUSEDISPOF;
                *LEXTRP (DISAPPEARANCE OF) TO DISPOF;
                *LEXTRP (CAST ENULL SPELLON) TO CASTSPELLON;
                *LEXTRP (SPELL ON) TO SPELLON;
                *LEXTRP (ORDER ENULL MURDEROF) TO ORDERMURDEROF;
                *LEXTRP (MURDER OF) TO MURDEROF;
                *LEXTRP (THREATEN MARRY) TO THREATMARRY;
                *LEXTRP (THREATEN EAT) TO THREATEAT;
                *LEXTRP (DECLARE ENULL WARON) TO DECLAREWARON;
                *LEXTRP (WAR ON) TO WARON;
                *LEXTRP (PULL OFF) TO PULLOFF;
                *LEXTRP (PLUCK OUT) TO PLUCKOUT;
                *LEXTRP (CUT OFF) TO CUTOFF;
                *LEXTRP(CUT OUT) TO CUTOUT;
                *LEXTRP (CALL FOR) TO CALLFOR;
                *LEXTRP (TRACK BLOODY) TO BLOODYTRACKS;
                *LEXTRP (GO VISIT) TO GOVISIT;
                *LEXTRP (GO WALK) TO GOWALK;
                *LEXTRP (GO FISH) TO GOFISH;
                *LEXTRP (GO BERRYGATHER) TO GOBERRYGATHER;
                *LEXTRP (DONOT GO TO) TO NOGOTO;
                *LEXTRP (DONOT LEAVE1) TO NOLEAVE;
                *LEXTRP (WHERE IS) TO WHEREIS;
                *LEXTRP (FLY2 INTO) TO FLYINTO;
                *LEXTRP (APPEAR2 IN) TO APPEARIN;
                *LEXTRP (SNEAK INTO) TO SNEAKINTO;
                *LEXTRP (WALK INTO) TO WALKINTO;
                *LEXTRP (WHO OWN) TO WHOOWN;
                *LEXTRP (TREE OTHER) TO OTHERTREE;
                *LEXTRP (BALL OF THREAD) TO BALLOFTHREAD;
                *LEXTRP (KINGDOM CERTAIN) TO CERTAINKINGDOM;
                *LEXTRP (PROVINCE DISTANT) TO DISTANTPROVINCE;
                *LEXTRP (WIVES POS DRAGON) TO DRAGONWIFE;
                *LEXTRP (DAUGHTER POS BABAYAGA) TO BABADAUGH;
                *LEXTRP (FATHER POS BEAR) TO BEARSFATHER;
                *LEXTRP (LIVE IN) TO LIVEIN;
                *LEXTRP (GO WORK) TO GOWORK;
                *LEXTRP (GO TO) TO GOTO;
                *LEXTRP (GO TRADE) TO GOTRADE;
                *LEXTRP (GO TO WAR) TO GOTOWAR;
                *LEXTRP (GO TO FOREST) TO GOTOFOREST;
                *LEXTRP (LADY SWEETOLD) TO SWEETOLLADY;
                *LEXTRP (OLD SWEET) TO SWEETOLD;
                *LEXTRP (FIGHTING WITH) TO FIGHTINGWITH;
                *LEXTRP (FREED FROM SPELL) TO FREEDFROMSPELL;
$
$
$
$| THE FOLK TALES GENERATED BY THIS PROGRAM FOLLOW THE STRUCTURE
$| DESCRIBED BY VLADIMIR PROPP IN HIS MORPHOLOGY OF THE FOLKTALE.
$| FORM NAMES AND PAGE NUMBERS REFER TO PROPP, SECOND EDITION.
$|
$| WRITTEN BY S. DAVID KALISH  AND MATTHEW APPELBAUM, SEPT. 1974.
$| REVISED BY MATTHEW APPELBAUM, MAY 1975.
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$
$| START THE SIMULATION BY SCHEDULING THE TWO SECTIONS OF THE MAIN
$| PROGRAM AND INITIALIZING THE GENDER-CLASS OF THE CHARACTERS.
$
$GROUP BEGIN :    10M/ON;
$RULE :           *DISABLE BEGIN,
                  *ENABLE TAIL IN 1D,
                  *ENABLE MASTER;
$LOOP :           P.PEOPLE;
$RULE :           T($NEXT P)
                  *MOVE MALE TO GENDER(P);
   10,-10 :       (P EQL MALES);
$RULE :           *MOVE FEMALE TO GENDER(P);
$ENDLOOP;
$ENDGROUP;
$
$| MASTER GROUP.  THE DRAMATIS PERSONAE ARE PICKED.  INITIALIZATION
$| IS PERFORMED FOR EACH FUNCTION (THAT IS CHOSEN TO OCCUR) BEFORE
$| IT IS ENTERED.  ALL QUANTIFICATIONS ARE CHOSEN IN THIS GROUP, WITH
$| SPECIFIC OUTPUT BEING PRODUCED IN THE CALLED GROUPS REPRESENTING
$| PROPP'S FUNCTIONS.  THE MASTER GROUP IS SPLIT INTO TWO SECTIONS.
$
$GROUP MASTER :   10M/OFF;
$RULE :           *DISABLE MASTER;
$
$
$| THE INITIAL SITUATION -- FUNCTION ALPHA (P. 25-26).
$
$
$
$| PICK FORM OF SEED FUNCTION:  A (VILLAINY) OR SMALL A (LACK).
$| THIS FORM WILL DETERMINE MUCH OF THE REST OF THE TALE.  IF THE
$| TALE BEGINS WITH A LACK, THEN THE PREPARATORY PART (FIRST SEVEN
$| FUNCTIONS) IS SKIPPED, AND THE FEW DRAMATIS PERSONAE NEEDED ARE
$| PICKED DIRECTLY IN FUNCTION SMALL A.
$
$
$RULE :           *MOVE PICK(AFORMS) TO AFORM;
  : .8 ;
$RULE :           *MOVE PICK(LOCATIONS) TO STORYLOC,
                  *MOVE PICK(LASTNAMS) TO FAMNAM,
                  *MOVE PICK(PLACES) TO VLOC;
$
$| PICK THE HERO, VILLAIN, VICTIM, AND OWNER.  THE HERO OR THE VICTIM,
$| OR BOTH, MUST BE IN THE FAMILY.
$
$
$RULE :           *MOVE PICK(CHARACTERS) TO HERO,
                  *REMOVE HERO FROM CHARACTERS;
$SWITCH :         T(SMALLA);
  10,-10 :        NUM(AFORM) EQ 0;
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$RULE :           F(OUTVILL)
                  *MOVE HERO TO FAMILY;
  : .65 ;
$
$| THE VILLAIN MAY BE IN THE FAMILY ONLY FOR SOME FORMS OF VILLAINY.
$| ALSO, A VILLAIN IN THE FAMILY MUST SOMETIMES BE A PARENT.
$
$RULE :           F(OUTVILL)
                  *MOVE PICK(CHARACTERS) TO VILLAIN,
                  *REMOVE VILLAIN FROM CHARACTERS,
                  *ADD VILLAIN TO FAMILY;
  -10,.3 :        (AFORM EQL VILNFAMFORMS);
$LOOP :           X.GENDER(VILLAIN);
$RULE :           (VILPICKED)
                  *MOVE VILLAIN TO PARENTS(X);
  10,-10 :        (AFORM EQL PARENTVILLAIN);
$ENDLOOP ;
$
$| THE VILLAIN IS NOT IN THE FAMILY, BUT PICKED FROM A CLASS OF
$| POSSIBLE VILLAINS.
$
$RULE OUTVILL :  *MOVE PICK(POSVILS) TO VILLAIN;
$
$| THE VICTIM CAN BE IN THE FAMILY, THE HERO CAN BE THE VICTIM IF HE IS
$| IN THE FAMILY, OR THE VICTIM MAY BE FROM OUTSIDE THE FAMILY.
$
$| BASED ON THE HERO, VILLAIN, AND FORM OF VILLAINY, THE VICTIM IS
$| CHOSEN TO BE OUTSIDE THE FAMILY.
$
$RULE VILPICKED :T(VICPICKED)
                  *MOVE PICK(CHARACTERS) TO VICTIM,
                  *REMOVE VICTIM FROM CHARACTERS,
                  *MOVE HERO TO SEEKER;
  -10,0 :         (VILLAIN EQL FAMILY);
  .2,0 :          (HERO EQL FAMILY) AND (AFORM EQL NVHFORMS);
  0,-10 :         (HERO EQL FAMILY);
  : .5 ;
$
$| THERE CAN BE A VICTIM-HERO FOR SOME FORMS OF VILLAINY.
$
$RULE :           T(VICPICKED)
                  *MOVE HERO TO VICTIM;
  0,-10 :         (HERO EQL FAMILY);
  -10,0 :         (AFORM EQL NVHFORMS);
  : .55 ;
$
$| THE VICTIM IS IN THE FAMILY IF NEITHER OF THE ABOVE CASES OCCURS.
$
$RULE :           *MOVE PICK(CHARACTERS) TO VICTIM,
                  *REMOVE VICTIM FROM CHARACTERS,
                  *ADD VICTIM TO FAMILY,
                  *MOVE HERO TO SEEKER;
$
$| THE VICTIM IS THE OBJECT OF THE VILLAINY UNLESS THE FORM OF VILLAINY
$| REQUIRES AN OWNED OBJECT TO BE THE OBJECT OF THE VILLAINY, IN WHICH
$| CASE THE VICTIM IS THE OWNER.
$
$RULE VICPICKED :*MOVE VICTIM TO VOBJECT;
$RULE :           T(OWNERPICKED)
                  *MOVE PICK(VOBTMP(AFORM)) TO VOBJECT,
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               *MOVE VICTIM TO OWNER;
10,-10 :       (AFORM EQL AOBFORMS);

 IF A PERSON IS THE OBJECT OF THE VILLAINY, ANOTHER PERSON IS PICKED
 TO BE THE "OWNER."  THE OWNER IS FROM THE FAMILY IF THE VICTIM IS,
 AND MAY BE A PARENT.

JLE :          *MOVE PICK(CHARACTERS) TO OWNER,
               *REMOVE OWNER FROM CHARACTERS;
JLE :          *ADD OWNER TO FAMILY;
16,-18 :       (VICTIM EQL FAMILY);
OP OWNERPICKED : X.GENDER(OWNER);
JLE :          *MOVE OWNER TO PARENTS(X);
.85,-10 :      (OWNER EQL FAMILY);
-,5,0 :        (VICTIM EQL OWNER);
.-10 :         NUM(PARENTS(X)) EQ 0;
DLOOP ;

 GROUP PICKPARENTS IS CALLED TO POSSIBLY PICK (AN) ADDITIONAL PARENT(S)
 FOR THE FAMILY.  GROUP ALPHA IS CALLED TO DESCRIBE THE INITIAL
 SITUATION.

JLE :          *CALL PICKPARENTS,
               *CALL ALPHA;

 INTERDICTION SEQUENCE -- FUNCTIONS BETA, GAMMA, AND DELTA
 (I, II, III, P. 26-27).  THIS SEQUENCE CAN BE PERFORMED ONLY IF THE
 HERO AND VICTIM ARE IN THE FAMILY.

ITCH :      F(VARIV);
,-10 :      (HERO EQL FAMILY) AND (VICTIM EQL FAMILY);
.8,.5 :     (HERO EQL VICTIM);

 PICK INTERDICTOR-ABSENTOR FROM THE FAMILY.

OP :        X.FAMILY;
LE :        T(BETPIC)
            *MOVE X TO ABSENTOR;
-10,10 :    (X EQL HERO) OR (X EQL VICTIM) OR (X EQL VILLAIN);
DLOOP;

 PICK FORM OF FUNCTION BETA DEPENDANT UPON COMPOSITION OF FAMILY.

JLE BETPIC :
            T(INTERPIC)
            *MOVE F1 TO BETAFORM;
.7,-10 :       (ABSENTOR EQL PARENTS(SEXES));
LE :        T(INTERPIC)
            *MOVE F2 TO BETAFORM,
            *MOVE ABSENTOR TO DEAD;
0,-10 :        (ABSENTOR EQL PARENTS(SEXES));
LE :        F(RECON)
            *MOVE F3 TO BETAFORM;
10,-10 :    NUM(ABSENTOR) EQ 1;

 RANDOMLY PICK FORM OF FUNCTION GAMMA, CONSTRUCT THE INTERDICTION,
 AND ASSIGN IT TO A PREDICATE NODE.  ASSUME AN APPROPRIATE FORM
 OF THE PAIRED ELEMENT, DELTA.
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$
$RULE INTERPIC :
                *MOVE PICK(GAMFORMS) TO GAMFORM;
$RULE :         T(GAMCALL)
                *DISCADD (HERO GAMGO(GAMFORM) VLOC) TO INTERDICT,
                *MOVE GOTO   TO DELTAREL;
  10,-10 :      (HERO EQL VICTIM);
$RULE :         *DISCADD (HERO GAMLEV(GAMFORM) VLOC) TO INTERDICT,
                *MOVE LEAVE1 TO DELTAREL;
$
$ | CALL ROUTINES FOR FUNCTIONS GAMMA, BETA, AND DELTA.
$
$RULE GAMCALL :
                *CALL GAMMA,
                *CALL BETA,
                *CALL DELTA;
$
$ | INTRODUCE THE VILLAIN, IF NECESSARY (P. 27).
$
$RULE VARIV: *CALL VILLARIV ;
  10,-10 :   NOT (VILLAIN EQL FAMILY);
$
$
$ | RECONNAISSANCE SEQUENCE -- FUNCTIONS EPSILON AND PSI (IV, V,
$ | P. 28-29).  THE FORM OF EPSILON IS RANDOMLY PICKED, NECESSARY
$ | ROLES ARE FILLED, AND GROUPS DESCRIBING EPSILON AND ITS
$ | PAIRED ELEMENT, PSI, ARE CALLED.
$
$
$SWITCH RECON :  T(TRICKERY);
   .5 ;
$RULE :           *MOVE PICK(EPSFORMS) TO EPSFORM;
  -10,10 :        (VILLAIN EQL FAMILY) : *MOVE F1 TO EPSFORM;
$SWITCH :         T(EPS2);
  10,-10 :        (EPSFORM EQL F2);
$RULE :           T(EPSCALL)
                  *MOVE OWNER TO EPSOBJECT;
  10,-10 :        (VOBJECT EQL BODPARTS);
$RULE :           (EPSCALL)
                  *MOVE VOBJECT TO EPSOBJECT;
$RULE EPS2 :      *MOVE PICK(VILPOSES) TO QOBJECT,
                  *MOVE PICK(VPOSLOCS) TO SLOC;
  10,-10 :        (F2 EQL EPSFORM);
$RULE EPSCALL :    (CA)
                  *CALL EPSILON,
                  *CALL PSI;
$
$
$ | TRICKERY SEQUENCE --  FUNCTIONS NU AND THETA (VI, VII, P. 29-30).
$ | THE FORM OF NU IS RANDOMLY PICKED, AND GROUPS TO DESCRIBE IT AND
$ | ITS PAIRED ELEMENT, THETA, ARE CALLED.  A DISGUISE IS CHOSEN FOR
$ | THE VILLAIN.
$
$
$RULE TRICKERY :
               *MOVE PICK(NUFORMS) TO NUFORM,
               *MOVE PICK(TRICKS(NUFORM)) TO TRICK,
               *MOVE NUFORM TO THETAFORM,
               *CALL VILDISG,
               *CALL NU,
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         *CALL THETA;
: .5 :

 VILLAINY -- FUNCTION A (VIII, P. 30-35).
 THE VILLAINY IS DESCRIBED BY CALLING GROUP A.  CONCOMITANT FORMS OF
 VILLAINY MAY BE CONSTRUCTED BY AGAIN CALLING A, IN THE PROPER
 CIRCUMSTANCES.  THE SOUGHT AFTER OBJECT IS DETERMINED BY THE FORM
 OF VILLAINY (AND IN ONE CASE BY THE RESPONSE TO THE VILLAINY) AND
 IS EITHER THE OBJECT OF THE VILLAINY OR THE VILLAIN.

 THE OWNER COULD BE MURDERED, THEN THE VICTIM ABDUCTED (A14-A1).

JLE CA :          *MOVE OWNER TO VOBJECT;
.5,-10 :     (AFORM EQL F14) AND (OWNER NEQ DEAD);

 GROUP A IS CALLED TO DESCRIBE THE (POSSIBLY INITIAL) VILLAINY.
 THE SOUGHT AFTER OBJECT IS DETERMINED.

JLE :        *CALL A;
JLE,C :      T(CONCOM)
             *MOVE VOBJECT TO SOBJECT;
-10,10 :     (AFORM EQL VILSOUGHT) OR (OWNER REFUSE);
JLE :        *MOVE VILLAIN TO SOBJECT;

 A MAGICAL AGENT COULD BE SEIZED, THEN ITS OWNER MURDERED (A2-A14).

JLE CONCOM :
             T(DISPATCH)
             *MOVE F14 TO AFORM,
             *MOVE OWNER TO VOBJECT,
             *ADD OWNER TO DEAD,
             *CALL A,
                *MOVE SOBJECT TO VOBJECT,
             *MOVE F2 TO AFORM;
0,-10 :         (F2 EQL AFORM);
-10,.3 :     (OWNER EQL DEAD);
JLE :           T(DISPATCH)
                *MOVE F1 TO AFORM,
                *MOVE VICTIM TO VOBJECT,
                *ADD OWNER TO DEAD,
                *CALL A,
                *MOVE VOBJECT TO SOBJECT;
10,-10 :        (AFORM EQL F14) AND (OWNER EQL VOBJECT);

 AN INJURY OR SPELL COULD BE FOLLOWED BY A REPLACEMENT (A6-A12 OR
 A11-A12).  GROUP REPLPICK IS CALLED TO DETERMINE THE REPLACEMENT.
JLE :           T(DISPATCH)
                *MOVE AFORM TO AFORMTMP,
                *CALL REPLPICK,
                *MOVE F12 TO AFORM,
                *CALL A,
                *MOVE AFORMTMP TO AFORM;
.3,-10 :        (AFORM EQL F6) OR (AFORM EQL F11);

 A SPELL, IF NOT INVOLVED ABOVE, WILL BE FOLLOWED BY AN EXPELLING
 (A11-A9).
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$RULE :           (DISPATCH)
                  *MOVE F9 TO AFORM,
                  *CALL A,
                  *MOVE F11 TO AFORM;
  10,-10 :        (AFORM EQL F11);
$
$ | LACK -- FUNCTION SMALL A (VIIIA, P. 35-36).
$ | IF THERE IS NO VILLAINY, A LACK IS RANDOMLY CHOSEN, ALONG WITH A
$ | SEEKER-HERO FROM THE FAMILY (WHO MAY BE A PARENT) AND A SOUGHT
$ | AFTER OBJECT (WHICH DEPENDS ON THE TYPE OF LACK).  GROUP SA
$ | DESCRIBES THE LACK.
$
$
$RULE SMALLA :   *MOVE PICK(SAFORMS) TO SAFORM;
$RULE :          *MOVE HERO TO SEEKER,
                 *MOVE HERO TO FAMILY;
$LOOP :          X.GENDER(HERO);
$RULE :          *MOVE HERO TO PARENTS(X);
  -10,.3 :       (F1 EQL SAFORM);
$ENDLOOP;
$RULE :          *CALL PICKPARENTS;
  .8,10 :        (F1 EQL SAFORM);
$SWITCH :        F(PICKSOBJ);
  10,-10 :       (F1 EQL SAFORM);
$RULE :          T(PICKSOBJ)
                 *MOVE BRIDE TO SAOBJ(F1);
  10,-10 :       (HERO EQL MALES);
$RULE :          *MOVE HUSBAND TO SAOBJ(F1);
$RULE PICKSOBJ : *MOVE PICK(SAOBJ(SAFORM)) TO SOBJECT;
$RULE :          *CALL SA;
$
$
$ | DISPATCH -- FUNCTION B (IX, P.36-38).
$ | THE FORM OF B THAT IS CHOSEN DEPENDS ON WHETHER THE TALE HAS A
$ | VICTIM-HERO OR A SEEKER-HERO.  GROUP B IS CALLED TO DESCRIBE THE
$ | FUNCTION.
$
$
$SWITCH DISPATCH : F(VICTM);
  10,-10 :    (HERO EQL SEEKER);
$
$ | THERE IS A SEEKER-HERO.  BASED ON THE HERO, OWNER, AND THE VILLAIN
$ | OR LACK, A FORM OF B IS PICKED.  IF NECESSARY, EITHER THE OWNER
$ | IS THE DISPATCHER, OR A DISPATCHER IS PICKED FROM THE FAMILY.
$
$
$ | FUNCTION B WILL BE SKIPPED UNDER CERTAIN CIRCUMSTANCES.
$
$SWITCH :          T(FUNCTC);
  .2,0 :           (HERO EQL FAMILY) AND (VICTIM EQL FAMILY)
                      AND NUM(AFORMTMP) EQ 0 OR NUM(SAFORM) EQ 1;
  10,0 :           NUM(SAFORM) EQ 1 AND NUM(FAMILY) EQ 1;
$
$ | IF NO FAMILY MEMBER IS AVAILABLE AS A DISPATCHER, AND ONE WILL BE
$ | NEEDED, A VILLAGER IS USED.
$
$RULE :            T(CALLB)
                   *MOVE F4 TO BFORM,
                   *MOVE VILLAGR2 TO DISPATCHER;
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*-10,0 :          NUM(SAFORM) EQ 1;
 10,0 :           (OWNER EQL DEAD) AND ((OWNER EQL PARENTS(SEXES)) AND
                                        (NUM(PARENTS(SEXES)) EQ 1 OR
                                        (VILLAIN EQL PARENTS(SEXES)))
                                   OR NUM(PARENTS(SEXES)) EQ 0);
 -10,.15 :        (HERO EQL FAMILY) AND (VICTIM EQL FAMILY);
*
*  THE FORM OF B IS OTHERWISE RANDOMLY PICKED, DEPENDING ON WHETHER
*  THERE WAS A VILLAINY OR A LACK.
*
$RULE BPICK :     T(BPICKED)
                  *MOVE PICK(BFORMS) TO BFORM;
  10,-10 :        NUM(AFORM) EQ 1;
$RULE :           *MOVE PICK(BFORMSLACK) TO BFORM;
*
*  FORM B3 IS INVALID IN SOME CASES AND A NEW PICK IS MADE.
*
$SWITCH BPICKED :T(BPICK);
  10,-10 :        (BFORM EQL F3) AND ((HERO EQL PARENTS(SEXES)) OR
                                   NOT (HERO EQL FAMILY));
$SWITCH :         T(CALLB);
  10,-10 :        (BFORM EQL F3);
*
*  IF NEEDED, THE DISPATCHER IS EITHER THE OWNER OR AN APPROPRIATE
*  PARENT.
*
$RULE :           T(CALLB)
                  *MOVE OWNER TO DISPATCHER;
  10,-10 :        NUM(OWNER) EQ 1 AND NOT (OWNER EQL DEAD);
$LOOP :           X.PARENTS(SEXES);
$RULE :           T(CALLB)
                  *MOVE X TO DISPATCHER;
  -10,10 :        (X EQL DEAD) OR (X EQL VILLAIN) OR (X EQL HERO);
$ENDLOOP;
$RULE CALLB :     (FUNCTC)
                  *CALL B;
*
*  THERE IS A VICTIM-HERO.  THE FORM OF B DEPENDS UPON THE FORM OF A.
*
$RULE VICTM :     T($ENDGROUP)
                  *MOVE F5 TO BFORM,
                  *CALL B;
  10,-10 :        (AFORM EQL F8) OR (AFORM EQL F9) OR (AFORM EQL F10);
$RULE :           T(FORMARW)
                  *MOVE F7 TO BFORM,
                  *CALL B;
  10,-10 :        (AFORM EQL F14);
$RULE :           (FORMARW)
                  *MOVE F6 TO BFORM,
                  *CALL B;
  10,-10 :        (AFORM EQL F13);
*
*
*  BEGINNING COUNTERACTION -- FUNCTION C (X, P. 38).
*  IF APPROPRIATE, ACCORDING TO THE FORM OF B, GROUP C IS CALLED.
*
*  THE SOUGHT AFTER OBJECT IS SEARCHED FOR EXCEPT IN ONE CASE, WHERE
*  "HELP" IS NEEDED.
*
$SWITCH FUNCTC : T(FORMARW);
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  10,.2 :         (F2 EQL BFORM);
  -10,0 :         NUM(BFORM) EQ 0;
$RULE :           T(CALLC)
                  *MOVE HELP TO COBJ;
  10,-10 :        (SOBJECT EQL VILLAIN) AND (VILLAIN EQL FAMILY);
$RULE :           *MOVE SOBJECT TO COBJ;
$RULE CALLC :     *CALL C;
*
*
*  DEPARTURE -- FUNCTION UP-ARROW (XI, P. 39).
*
*
$RULE FORMARW :   *CALL DEPART;
  10,.8 :         (VICTIM EQL HERO) OR NUM(COBJ) EQ 0;
$ENDGROUP ;
*
*
*  THE FIRST SECTION OF THE MASTER GROUP ENDS WITH THE DEPARTURE OF
*  THE HERO.  THE REST OF THE TALE TAKES PLACE A DAY LATER.
*
*
*
$GROUP TAIL : 10M/OFF ;
$RULE : *DISABLE TAIL ;
*
*
*  DONOR SEQUENCE -- FUNCTIONS D, E, AND F (XII, XIII, XIV, P. 39-50).
*  THIS SEQUENCE IS RELATIVELY INDEPENDENT OF THE REST OF THE TALE.
*  BASICALLY, ANY FORM OF FUNCTION D CAN OCCUR, FOLLOWED BY ITS
*  PAIRED ELEMENT, FUNCTION E.  FUNCTION F THEN DEPENDS UPON FUNCTION
*  D ACCORDING TO THE CONNECTIONS SHOWN IN THE CHART ON P. 47.  WE
*  ASSUME, HOWEVER, THAT FOR THE SAKE OF CONTINUITY, THE MAGICAL
*  AGENT(S) ACQUIRED BY THE HERO WILL PROBABLY BE USED, IF POSSIBLE.
*  THEREFORE, WE GIVE THE HERO WHAT HE WILL OR MIGHT NEED, AND WE
*  USUALLY HAVE THE HERO USE THE MAGICAL AGENT(S) HE HAS ACQUIRED.  THE
*  HERO RANDOMLY GETS EITHER ONE OR THREE MAGICAL AGENTS, IN MOST CASES.
*
*
$SWITCH :         T(LTHREE);
  .3,.4 :         NUM(SAFORM) EQ 1;
  -10,0 :         (VICTIM EQL HERO);
*
*  THE HERO GETS ONLY ONE MAGICAL AGENT.
*  A VICTIM-HERO GETS A MAGICAL TRANSPORTATION AGENT.
*
$RULE :           T(SWQUAL)
                  *MOVE PICK(MOTRANS) TO MAGHELPS;
  10,-10 :        (VICTIM EQL HERO);
*
*  OTHERWISE, THE HERO CAN USUALLY GET ANY MAGICAL AGENT.  FOR EXAMPLE,
*  FOR A LACK, A LIQUIDATION AGENT OR THE SOUGHT AFTER OBJECT ITSELF
*  MAY BE GIVEN, WHILE A KILLING AGENT WON'T BE GIVEN.
*
$SWITCH :         T(LPICK1) ;
  10,-10 :        NUM(SAFORM) EQ 0 ;
$RULE :           T(SETORIG)
                  *MOVE PICK(MAGLIQS) TO MAGHELPS;
  .4,.75 :        (SAFORM EQL F2);
$RULE :           T(SETORIG)
                  *MOVE SOBJECT TO MAGHELPS;
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  .7,-10 :        (SAFORM EQL F2);
$RULE LPICK1 :    *MOVE PICK(MOALL) TO MAGHELPS;
$SWITCH :         T(LPICK1);
  10,0 :          ((VILLAIN EQL SOBJECT) OR (VICTIM EQL HERO))
                       AND (MAGHELPS EQL MAGLIQS);
  10,-10 :        NUM(SAFORM) EQ 1 AND (MAGHELPS EQL MOKILLS)
                           OR (MAGHELPS EQL TRANSFORMABILITY);
$SWITCH SWQUAL : T(LQUAL);
  10,-10 :        (MAGHELPS EQL MAGQUALS);
*
*  THE MAGICAL AGENT MAY COME FROM ANOTHER MAGICAL AGENT.
*
$RULE :           T(DPICK) F(SETORIG)
                  *MOVE PICK(MAGCHANGS) TO MAGHELPORIG;
       : .4 ;
*
*  A MAGICAL QUALITY COMES FROM A FOOD WHICH IS CONSUMED.
*
$RULE LQUAL :     (FORMD)
                  *MOVE PICK(MAGFOOD) TO MAGHELPORIG,
                  *MOVE F1 TO DFORM,
                  *MOVE F7 TO FFORM;
*
*  IF THE SINGLE AGENT DOESN'T COME FROM ANOTHER AGENT THEN IT IS
*  THE ORIGINAL AGENT.
*
$RULE SETORIG :   (DPICK)
                  *MOVE MAGHELPS TO MAGHELPORIG;
*
*  THE HERO WILL RECEIVE THREE MAGICAL AGENTS, OF TYPES KILLING AND
*  TRANSPORTATION, AND EITHER LIQUIDATION OR RESCUE, DEPENDING ON
*  POSSIBLE LATER USE.  FOR A LACK, A RESCUE AGENT REPLACES A
*  KILLING AGENT.
*
$RULE LTHREE :    *MOVE PICK(MAGKILLS ) TO MAGHELP1,
                  *MOVE MAGHELP1 TO MAGHELPS;
  10,-10:         NUM(SAFORM) EQ 0;
$RULE :           *MOVE PICK(MAGTRANS ) TO MAGHELP2,
                  *ADD MAGHELP2 TO MAGHELPS,
                  *REMOVE MAGHELP2 FROM MAGRESCS;
$RULE :           T(DCHNG)
                  *MOVE PICK(MAGRESCS) TO MAGHELP3,
                  *ADD MAGHELP3 TO MAGHELPS;
  10,0 :          (VILLAIN EQL SOBJECT) ;
  -10,.65 :       NUM(SAFORM) EQ 1;
$RULE :           *MOVE PICK(MAGLIQS) TO MAGHELP3,
                  *ADD MAGHELP3 TO MAGHELPS;
$RULE :           *MOVE PICK(MAGRESCS) TO MAGHELP1,
                  *ADD MAGHELP1 TO MAGHELPS;
  10,-10 :        NUM(SAFORM) EQ 1;
*
*  ANOTHER AGENT MAY CHANGE INTO THE THREE TO BE ACQUIRED.
*
$RULE DCHNG :     *MOVE PICK(MAGCHANGS) TO MAGHELPORIG;
       : .5 ;
*
*  THE FORM OF D IS RANDOMLY PICKED IN MOST CASES.
*
$RULE DPICK :     *REMOVE F10 FROM DFORMS;
  0,10 :          (M.MAGHELPS EQL MOKILLS) : *MOVE M TO MAGHELPKILL;
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  10,-10 :        (MAGHELPORIG EQL MAGCHANGS);
$RULE :           T(FORMD)
                  *MOVE PICK(DFORMS) TO DFORM;
*
*  A DONOR IS RANDOMLY PICKED EXCEPT FOR TWO FORMS OF D.
*
$RULE FORMD :     T(FILLCLASSES)
                  *MOVE PICK(DONORS) TO DONOR;
  -10,10 :        (F1 EQL DFORM) OR (F3 EQL DFORM);
*
*  FOR FORMS 1 AND 3 OF D, THE DONOR IS PICKED ACCORDING TO THE FORM.
*  THEN, A CALL IS MADE ON THE NAME OF THE DONOR, WHICH CONSTRUCTS
*  AN APPROPRIATE TASK AND RESPONSE.
*
$RULE :           (CALLD)
                  *MOVE PICK(DOBJ(DFORM)) TO DONOR,
                  *CALL DONOR;
*
*  FOR ONE FORM OF D, A METHOD OF KILLING IS RANDOMLY CHOSEN AND
*  SAVED FOR GROUP E.
*
$RULE FILLCLASSES : T(CALLD)
                  *MOVE PICK(KILLMETS) TO KILLMETH;
  10,-10 :        (DFORM EQL F8);
*
*  FOR FORM 6, A DISPUTED OBJECT IS EITHER RANDOMLY CHOSEN (NON-
*  MAGICAL) OR A MAGICAL AGENT WHICH IS GOING TO BE ACQUIRED BY THE
*  HERO (IT HAS BEEN PREVIOUSLY PICKED) IS MADE THE OBJECT OF THE
*  DISPUTE.  THE TYPE OF OBJECT WILL DETERMINE WHICH SUBTYPE OF
*  FORM 6 IS USED, AND WHICH FORM OF FUNCTION F IS USED.
*
$SWITCH :         F(CALLD);
  10,-10 :        (DFORM EQL F6);
$RULE :           T(CALLD)
                  *MOVE PICK(DISTYPES) TO DISTYPE,
                  *MOVE F1 TO FFORM;
  : .5 ;
$RULE :           T(SETF)
                  *MOVE PICK(MAGHELPS) TO DISTYPE;
  10,-10 :        NUM(MAGHELPORIG) EQ 0;
$RULE :           *MOVE MAGHELPORIG TO DISTYPE;
$RULE SETF :      *MOVE F8 TO FFORM;
*
*  GROUP D IS CALLED TO DESCRIBE FUNCTION D.
*
$RULE CALLD :     *CALL D;
*
*
*  REACTION -- FUNCTION E (XIII, P. 42-43).
*  THIS IS A PAIRED ELEMENT WITH FUNCTION D, EXCEPT THAT, FOR SOME
*  FORMS, TREBLING MAY OCCUR.
*
*
$SWITCH :         F(CALLE);
  .5,-10 :        (DFORM EQL DNFORMS);
*
*  THE FORM OF TREBLING DEPENDS UPON THE FORM OF D AND SOMETIMES
*  THE TYPE OF DONOR.
*
$RULE :           T(CALLE)
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                    HERO FAIL,
                    *INSERT (HERO TRY)(TRY AGAIN),
                    *INSERT (HERO FAIL)(FAIL AGAIN),
                    *INSERT (HERO TRY)(TRY FOR TIME)(TIME THIRD);
  10,-10 :          (F1 EQL DFORM) AND (DONOR EQL DTRYS);
$RULE :             T(CALLE)
                    *INSERT (HERO DONOT)(DONOT RESPOND),
                    *INSERT (DONOR ASK)(ASK AGAIN),
                    *INSERT (HERO RESPOND)(RESPOND RUDELY),
                    *INSERT (DONOR ASK)(ASK FOR TIME)(TIME THIRD);
  10,-10 :          (F2 EQL DFORM);
$RULE :             T(CALLE)
                    *INSERT (HERO DONOT)(DONOT RESPOND),
                    *INSERT (DONOR ASK)(ASK AGAIN),
                    HERO REFUSE,
                    *INSERT (DONOR ASK)(ASK FOR TIME)(TIME THIRD);
  10,-10 :          ((F1 EQL DFORM) OR (F3 EQL DFORM))
                         AND (DONOR EQL DRESPS);
$RULE :             *INSERT (DONOR REPEL HERO)(REPEL TWICE),
                    *INSERT (THEY FIGHT)(FIGHT FOR TIME)(TIME THIRD);
$
$ GROUP E IS CALLED TO DESCRIBE FUNCTION E.
$
$RULE CALLE :       *CALL E;
$
$
$ RECEIPT -- FUNCTION F (XIV, P. 43-50).
$ THE FORM OF F DEPENDS UPON THE FORM OF D, ACCORDING TO THE CHART
$ IN PROPP, P. 47 (UNLESS THE FORM OF F HAS BEEN FORCED DUE TO
$ THE TYPE OF MAGICAL AGENT).  GROUP F IS CALLED TO DESCRIBE
$ FUNCTION F.
$
$
$SWITCH :           T(TRANSFERENCE);
  10,-10 :          (DFORM EQL F10);
$RULE :             *MOVE PICK(FOFD(DFORM)) TO FFORM;
  10,-10 :          NUM(FFORM) EQ 0;
$RULE :             *CALL F;
$
$
$ TRANSFERENCE -- FUNCTION G (XV, P. 50-51).
$ FUNCTION G IS SKIPPED IF NECESSARY.  IT MAY BE SKIPPED IF
$ TRANSFERENCE IS NOT REQUIRED FOR CONTINUITY.
$
$
$
$SWITCH TRANSFERENCE : T(FORMRET);
  10,0 :            (HERO EQL VICTIM) OR (MAGHELPS EQL SOBJECT);
$SWITCH :           T(FORMK);
  .6,-10 :          (VILLAIN NEQ SOBJECT) AND (MAGHELPS EQL MAGLIQS);
  -.2,0 :           (MAGHELPS EQL MOTRANS);
$
$ IF AN APPROPRIATE MAGICAL AGENT IS AVAILABLE, IT IS USED; THE
$ FORM OF G THEN DEPENDS UPON THE AGENT.  THE AGENT USED IS NOTED,
$ IN SOME CASES, TO FORCE THE USE OF DIFFERENT AGENTS LATER ON.
$
$RULE :             F(GNONMAG)
                    *MOVE PICK(GMFORMS(GHELPER)) TO GFORM;
  10,-10 :          (M.MAGHELPS EQL MOTRANS): *MOVE PICK(M) TO GHELPER,
                                              *MOVE M TO GTRANS;
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.
$RULE :             (CALLG)
                    *REMOVE GHELPER FROM MAGHELPS;
  10,-10 :          NUM(GTRANS) GT 1;
$
$ THERE IS NO APPROPRIATE MAGICAL AGENT, SO THE FORM OF G IS RANDOMLY
$ PICKED, AND A HELPER IS RANDOMLY PICKED BASED UPON THE FORM OF
$ G.  THERE IS ONE SPECIAL CASE.
$
$RULE GNONMAG :     T(GF5)
                    *MOVE PICK(GNMFORMS) TO GFORM,
                    *MOVE PICK(GHELPERS(GFORM)) TO GHELPER;
  .5,10 :           (DFORM EQL F9);
$RULE : (CALLG)     *MOVE F6 TO GFORM,
                    *MOVE BLOODYTRACKS TO GHELPER;
$RULE GF5:          *MOVE GREL2(GHELPER) TO GREL(F5);
  10,-10 :          (GFORM EQL F5);
$
$ GROUP G IS CALLED TO DESCRIBE FUNCTION G.
$
$RULE CALLG :       *CALL G;
$
$
$ COMBAT SEQUENCE -- FUNCTIONS H, J, AND I (XVI, XVII, XVIII,
$ P. 51-53).  THIS SEQUENCE IS SKIPPED IF THERE IS NO VILLAIN AND UNDER
$ CERTAIN OTHER CIRCUMSTANCES.
$
$
$SWITCH :           F(FORMK);
  1,-10 :           NUM(VILLAIN) EQ 1;
  10,0 :            (MAGHELPS EQL MOKILLS) AND (DFORM NEQ F10);
  0,-.5 :           (VILLAIN EQL SOBJECT);
  -.4,0 :           (AFORM EQL F3) OR (AFORM EQL F5);
$
$ EXCEPT FOR THE CASE WHERE A MAGICAL AGENT IS TO BE USED, THE FORM
$ OF FUNCTION H IS RANDOMLY PICKED AND A PAIRED FORM OF FUNCTION I
$ IS USED.  FUNCTION J IS ALLOWED ONLY FOR ONE TYPE OF H.
$ ONE FORM OF FUNCTION I HAS NO CORRESPONDING FORM OF FUNCTION H.
$
$RULE :             T(CALLI)
                    *MOVE F5 TO IFORM,
                    *ADD VILLAIN TO DEAD;
  .5,.3 :           (M.MAGHELPS EQL MOKILLS) : *MOVE M TO MAGHELPKILL;
$RULE :             T(CALLH)
                    *MOVE F1 TO HFORM;
  10,0 :            NUM(MAGHELPKILL) EQ 1;
$RULE :             *MOVE PICK(HFORMS) TO HFORM;
$
$ GROUPS H, J, AND I ARE CALLED TO DESCRIBE THEIR RESPECTIVE FUNCTIONS.
$
$RULE CALLH :       *CALL H,
                    *MOVE HFORM TO IFORM;
$RULE :             *CALL J;
  .5,-10 :          (HFORM EQL F1);
$RULE CALLI :       *CALL I;
$
$
$ LIQUIDATION -- FUNCTION K (XIX, P. 53-55).
$ IF AN APPROPRIATE MAGICAL AGENT EXISTS, IT IS USED.
$
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$RULE FORMK         T(CALLK)
                    *MOVE F5 TO KFORM;
  10,-10 :          (M.MAGHELPS EQL MAGLIQS) : *MOVE M TO MAGHELPLIQ;
$
$ OTHERWISE, THE FORM OF K IS USUALLY RANDOMLY PICKED BASED UPON
$ THE FORM OF VILLAINY OR LACK.  A DEFEATED VILLAIN REQUIRES FORM K4.
$
$RULE :             T(CALLK)
                    *MOVE F4 TO KFORM;
  10,-10 :          (SOBJECT EQL VILLAIN) AND NUM(IFORM) EQ 1;
$RULE :             T(KFCHECK)
                    *MOVE PICK(KFORMS(AFORM)) TO KFORM;
  10,-10 :          NUM(SAFORM) EQ 0;
$RULE :             *MOVE PICK(KSFORMS(SAFORM)) TO KFORM;
$
$ IN ONE CASE, A FORM OF F MAY BE USED AS THE FORM OF K.
$
$RULE KFCHECK :     (CALLK)
                    *MOVE PICK(KFFORMS) TO KFFORM;
  10,-10 :          (KFORM EQL F11);
$
$  GROUP K IS CALLED TO DESCRIBE FUNCTION K.
$
$RULE CALLK :       *CALL K;
$
$
$ RETURN -- FUNCTION DOWN-ARROW (XX, P. 55-56).
$ GROUP RETURN IS CALLED TO DESCRIBE THE FUNCTION, WHICH USUALLY OCCURS
$
$
$RULE FORMRET :     F($ENDGROUP)
                    *CALL RETURN;
  -10,10 :          (VILLAIN EQL SOBJECT) AND (VILLAIN EQL FAMILY);
$
$
$ PURSUIT -- FUNCTION PR (XXI, P. 56-57).
$ THE FUNCTIONS PURSUIT AND RESCUE ARE SKIPPED UNDER APPROPRIATE
$ CIRCUMSTANCES.
$
$
$SWITCH :           T(CALLEND);
  10,.5 :           NUM(VILLAIN) EQ 0 OR (VILLAIN EQL FAMILY) AND
                                          (VILLAIN EQL DEAD);
  -10,0 :           (MAGRESCS EQL MAGHELPS) AND NUM(GFORM) EQ 0
                         OR (TRANSFORMABILITY EQL MAGHELPS);
  .4,0 :            (VICTIM EQL HERO);
  -.3,0 :           NUM(HFORM) EQ 0;
  -.3,0 :           NUM(GTRANS) GT 1;
$
$ THE FORM OF PURSUIT IS RANDOMLY PICKED.
$
$RULE :             *MOVE PFORMSFAMVIL TO PFORMS;
  10,-10 :          (VILLAIN EQL FAMILY);
$RULE :             *MOVE PICK(PFORMS) TO PFORM;
$
$ THE PURSUER IS EITHER THE VILLAIN OR HIS FRIENDS, AS NECESSARY.
$
$RULE :             T(CALLPR)
                    *MOVE PICK(POSPURSU(VILLAIN)) TO PURSUER;
  10,-10 :          NUM(IFORM) EQ 1
.
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.
                    OR((KFORM EQL F7) OR (KFORM EQL F1)) AND
                    (SOBJECT EQL VILLAIN) ;
$RULE :             *MOVE VILLAIN TO PURSUER;
$
$ GROUP PR IS CALLED TO DESCRIBE FUNCTION PR.
$
$RULE CALLPR :      *CALL PR;
$
$
$ RESCUE -- FUNCTION RS (XXII, P.57-58).
$ IF THERE IS AN APPROPRIATE MAGICAL AGENT AVAILABLE, ITS PROPER
$ USE IS FORCED.
$
$
$SWITCH :           T(HELP);
  10,-10 :          (M.MAGHELPS EQL MORESCS) : *MOVE PICK(M) TO RHELP;
$
$ OTHERWISE, THE FORM OF RS DEPENDS UPON THE FORM OF PR.
$
$RULE : (CALLRS) *MOVE PICK( RSFORMS(PFORM)) TO RSFORM;
$
$ IF A MAGICAL AGENT IS TO BE USED. THE FORM OF RS DEPENDS UPON THE
$ TYPE OF AGENT.
$
$RULE HELP :        F(CHNG)
                    *MOVE RHELP TO RSHELPER(F1),
                    *MOVE F1 TO RSFORM;
  10,-10 :          (RHELP EQL MOTRANS);
$RULE :             (CALLRS)
                    *MOVE USING TO RSREL2(F1);
  10,-10 :          (RHELP EQL MAGQUALS);
$RULE CHNG :        *MOVE PICK(THELP) TO RSFORM;
$
$ GROUP RS IS CALLED TO DESCRIBE FUNCTION RS.
$
$RULE CALLRS :      *CALL RS;
$
$
$ GROUP END DESCRIBES THE TALE'S HAPPY ENDING.
$ THIS COMPLETES THE MASTER GROUP.
$
$
$RULE CALLEND :     *CALL END;
$ENDGROUP;
$
$
$
$ THE SEPARATE GROUPS NOW FOLLOW.  EACH FUNCTION HAS A GROUP WHICH
$ DESCRIBES IT.  THE GROUP NAMES ARE GENERALLY THE SAME AS THE
$ FUNCTION DESIGNATIONS.  THERE ARE SEVERAL EXTRA GROUPS WHICH PERFORM
$ SOME NECESSARY INTERGROUP EXPLANATIONS.  ALL GROUPS ARE CALLED
$ FROM THE MASTER GROUP.
$
$
$
$ GROUP ALPHA -- THE INITIAL SITUATION (P. 25-26).
$ THE CHARACTERS ARE DESCRIBED BY PICKING THEM ONE AT A TIME AND
$ FINDING THE ROLE THEY ARE PLAYING.
$
$
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.
$GROUP ALPHA : 10M/OFF;
$RULE :            FAMNAM LIVEIN STORYLOC,
                   *MOVE FAMILY TO FAMTMP;
*
* | GET NEXT CHARACTER FROM THE FAMILY, AND HIS SEX.
*
$RULE NEXTMEMBER :F(FAMILYDONE)
                   *MOVE PICK(FAMTMP) TO MEMBER,
                   *REMOVE MEMBER FROM FAMTMP,
                   *MOVE GENDER(MEMBER) TO SEX;
  10,-10 :         NUM(FAMTMP) GT 0;
*
* | CHARACTER IS THE HERO.
*
$RULE :            T(NEXTMEMBER)
                   *INSERT (MEMBER IS CHILD(SEX))(CHILD(SEX) BRAVE);
  10,-10 :         (MEMBER EQL HERO);
*
* | CHARACTER IS A NON-PARENT VICTIM.
*
$RULE :            T(WHATOWNED)
                   *INSERT (MEMBER IS CHILD(SEX))(CHILD(SEX) UNLUCKY);
  1,-10 :          (MEMBER EQL VICTIM);
  -10,0 :          (MEMBER EQL PARENTS(SEXES));
*
* | CHARACTER IS A PARENT AND OWNER.
*
$RULE :            F(NEXTROLE)
                   PARENT(SEX) IS MEMBER;
  10,-10 :         (MEMBER EQL OWNER) AND (OWNER EQL PARENTS(SEXES));
*
* | DESCRIBE WHAT OBJECT THE VICTIM-OWNER OWNS.
*
$RULE WHATOWNED :(NEXTMEMBER)
                   MEMBER HAVE VOBJECT;
  10,-10 :         (VICTIM EQL OWNER) AND NOT (VOBJECT EQL BODPARTS);
*
* | CHARACTER IS A NON-PARENT OWNER.
*
$RULE NEXTROLE : T(NEXTMEMBER)
                   *INSERT (MEMBER IS CHILD(SEX))(CHILD(SEX) OLDEST);
  10,-10 :         (MEMBER EQL OWNER);
*
* | CHARACTER IS A PARENT, BUT HAS NO OTHER ROLE.
*
$RULE :            T(NEXTMEMBER)
                   MEMBER IS PARENT(SEX);
  10,-10 :         (MEMBER EQL PARENTS(SEXES)) AND
                       NOT (MEMBER EQL VILLAIN);
*
* | CHARACTER IS A PARENT AND VILLAIN.
*
$RULE :            T(NEXTMEMBER)
                   *INSERT (MEMBER IS PARENT(SEX))(PARENT(SEX) STEP);
  10,-10 :         (MEMBER EQL PARENTS(SEXES));
*
* | CHARACTER IS A NON-PARENT VILLAIN.
*
$RULE :            (NEXTMEMBER)
                   *INSERT (MEMBER IS CHILD(SEX))(CHILD(SEX) WICKED).
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                           MEMBER HATE VICTIM;
*
* | THE FAMILY HAS BEEN DESCRIBED, SO NOW ANY OTHER CHARACTERS WILL
* | BE DESCRIBED: THE HERO, AND THE VICTIM AND THE OBJECT HE OWNS,
* | OR THE VICTIM AND HIS PARENT.
*
$RULE FAMILYDONE :T($ENDGROUP)
                   *INSERT (HERO LIVEIN LAND)(LIVEIN ALSO)(LAND SAME)
                   *INSERT (HERO OF BIRTH)(BIRTH MIRACULOUS);
  -10,10 :         (HERO EQL FAMILY);
$SWITCH :          T($ENDGROUP);
  10,-10 :         (VICTIM EQL FAMILY);
$RULE :            T($ENDGROUP)
                   *INSERT (OWNER LIVEIN LAND)(LIVEIN ALSO)(LAND SAME
                   *INSERT (VICTIM IS CHILD(GENDER(VICTIM)))
                         (CHILD(GENDER(VICTIM)) POS OWNER);
  -10,10 :         (AFORM EQL AOBFORMS);
$RULE :            T($ENDGROUP)
                   *INSERT (OWNER LIVEIN LAND)(LAND SAME)(LIVEIN ALSO
                         (OWNER WHOOWN VOBJECT);
  -10,10 :         (VOBJECT EQL BODPARTS);
$RULE :            *INSERT (OWNER LIVEIN LAND)(LAND SAME)(LIVEIN ALSO
$ENDGROUP;
*
*
* | GROUP REPLPICK.  THIS GROUP IS USED TO PICK (EXTRA) PARENTS FOR
* | THE FAMILY.
*
*
$GROUP PICKPARENTS: 10M/OFF;
$RULE NEXTTRY :    *MOVE PICK(CHARACTERS) TO CHARTMP;
$LOOP :            X.GENDER(CHARTMP);
$RULE :            *REMOVE CHARTMP FROM CHARACTERS,
                   *MOVE CHARTMP TO PARENTS(X),
                   *ADD CHARTMP TO FAMILY;
  10,-10 :         NUM(PARENTS(X)) EQ 0;
$ENDLOOP ;
$SWITCH :          T(NEXTTRY);
  -10,.6 :         NUM(PARENTS(SEXES)) EQ 2;
$ENDGROUP;
*
*
* | GROUP BETA -- ABSENTATION (I, P. 26).
* | ONE GENERAL RULE IS USED FOR THE THREE POSSIBLE FORMS.  A MOTIVE
* | FOR LEAVING IS RANDOMLY PICKED.
*
*
$GROUP BETA : 10M/OFF;
$RULE :            *INSERT (ABSENTOR BETAREL(BETAFORM))
                         (BETAREL(BETAFORM) PICK(MOTIVE(BETAFORM)));
$ENDGROUP;
*
*
* | GROUP GAMMA -- INTERDICTION (II, P. 26).
* | THE INTERDICTION HAS BEEN PREVIOUSLY CONSTRUCTED IN THE MASTER C
*
*
$GROUP GAMMA : W10M/OFF;
$RULE :            *INSERT (ABSENTOR RAND VICTIM)(ABSENTOR RAND HERO)
                         (VICTIM IN VLOC);
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  -10,10 :         (HERO EQL VICTIM);
$RULE :             ABSENTOR SAY2 INTERDICT;
$ENDGROUP;
*
*
* | GROUP DELTA -- VIOLATION (III, P. 27).
*
*
$GROUP DELTA : 10M/OFF;
$RULE :            HERO DELTAREL VLOC;
$ENDGROUP;
*
*
* | GROUP VILLARIV -- ARRIVAL OF THE VILLAIN (P. 27).
* | THE FORM OF ARRIVAL IS RANDOMLY PICKED.
*
*
$GROUP VILLARIV : 10M/OFF;
$RULE :            VILLAIN PICK(ARRIVALS) STORYLOC;
$ENDGROUP;
*
*
* | GROUP EPSILON -- RECONNAISSANCE (IV, P. 28).
* | THE TWO FORMS REQUIRE SEPARATE RULES.
*
*
$GROUP EPSILON : 10M/OFF;
$RULE :            T($ENDGROUP)
                   *INSERT (VILLAIN ASK1 VILLAGER)(ASK1 WHEREIS EPSOBJECT);
  10,-10 :         (F1 EQL EPSFORM);
$RULE :            *INSERT  (VICTIM ASK1 VILLAIN)(ASK1 WHEREIS QOBJECT);
$ENDGROUP;
*
*
* | GROUP PSI -- DELIVERY (V, P. 28).
* | THE TWO FORMS REQUIRE SEPARATE RULES.
*
*
$GROUP PSI : 10M/OFF;
$RULE :          T($ENDGROUP)
                   *INSERT (VILLAGER SAY2 THAT)(EPSOBJECT IN VLOC);
  10,-10 :         (F1 EQL EPSFORM);
$RULE :            *INSERT (VILLAIN SAY2 THAT)(QANS(QOBJECT) IN SLOC);
$ENDGROUP;
*
*
* | GROUP VILDISG -- VILLAIN DISGUISES HIMSELF (P. 29).
* | THE DISGUISE IS RANDOMLY PICKED.
*
*
$GROUP VILDISG  : 10M/OFF;
$RULE :            *INSERT (VILLAIN DISGUIS PERPRON(VILLAIN))
                         (DISGUIS AS PICK(DISGUISES));
$ENDGROUP;
*
*
* | GROUP NU -- TRICKERY (VI, P. 29).
* | A TRICK IS RANDOMLY PICKED.  THE TWO FORMS REQUIRE SEPARATE RULES.
*
*
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.
$GROUP NU : 10M/OFF;
$RULE :            T($ENDGROUP)
                   *INSERT (VILLAIN ATTEMPT)(ATTEMPT PERSUADE)
                         (PERSUADE TAKE TRICK)(PERSUADE ANULL V
  10,-10 :         (F1 EQL NUFORM) ;
$RULE :            *INSERT (VILLAIN USE TRICK)(USE ON VICTIM);
$ENDGROUP;
*
*
* | GROUP THETA -- COMPLICITY (VII, P. 30).
* | ONE FORM REQUIRES AN ADDITIONAL RULE.
*
*
$GROUP THETA : 10M/OFF;
$RULE :            *INSERT (VICTIM PRSUADED)(PRSUADED TAKE TRICK);
  10,-10 :         (F1 EQL THETAFORM);
$RULE :            VICTIM FALLASLEEP;
$ENDGROUP;
*
*
* | GROUP REPLPICK-- DETERMINATION OF REPLACEMENT.
*
*
$GROUP REPLPICK :  10M/OFF;
$RULE :            T($ENDGROUP)
                   *DISCADD (SON POS VILLAIN) TO REPLACEMENT;
  10,-10 :         (VICTIM EQL MALES);
$RULE :            *DISCADD (DAUGHTER POS VILLAIN) TO REPLACEMEN
$ENDGROUP;
*
*
* | GROUP A -- VILLAINY (VIII, P. 30).
* | MOST FORMS OF A ARE HANDLED IN A SINGLE RULE.  THREE FORMS
* | DIFFERENT RULES, AND ANOTHER FORM REQUIRES AN ADDITIONAL RU
* | (A RESPONSE).
*
*
$GROUP A : 10M/OFF;
$RULE :          T(AONE)
                 VILLAIN AREL(AFORM) VOBJECT;
  -10,10 :          (AFORM EQL ADIFF);
$RULE : T($ENDGROUP) *INSERT (VILLAIN AREL(AFORM) VOBJECT)
                   (AREL(AFORM) AREL2(AFORM) AOBJ(AFORM));
  10,-10 :          (AFORM EQL F10) OR (AFORM EQL F18);
$RULE :          T($ENDGROUP)
                 *INSERT (VILLAIN INJUR(VOBJECT) VOBJECT)(VOBJEC
                         VICTIM);
  10,-10 :       (F6 EQL AFORM);
$RULE AONE :       T($ENDGROUP)
                   VICTIM GIVENTO VILLAIN;
  .5,-10 :         (F8 EQL AFORM);
$RULE :            T($ENDGROUP)
                   OWNER REFUSE;
  10,-10 :         (F8 EQL AFORM);
$RULE :            *INSERT (VICTIM REPLACED)(REPLACED WITH REPLA
  10,-10 :         (F12 EQL AFORM);
$ENDGROUP;
*
*
* | GROUP SMALL A -- LACK (VIIIA, P. 35).
*
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.
\| THE INITIAL SITUATION AND LACK ARE DESCRIBED.
\
$GROUP SA : 10M/OFF;
$RULE :            T(NEED)
                   PLACE IS STORYLOC,
                   FAMILY ALONE;
  10,-10 :         NUM(FAMILY) EQ 1;
$RULE :            FAMNAM LIVEIN STORYLOC;
$LOOP :            X.FAMILY;
$RULE :            *MOVE GENDER(X) TO SEX;
$RULE :            T($NEXT X)
                   PARENT(SEX) IS X;
  10,-10 :         (X EQL PARENTS(SEX));
$RULE :            *INSERT (CHILD(SEX) IS X)(CHILD(SEX) OLDEST);
$ENDLOOP;
$RULE NEED :       HERO NEED SOBJECT;
$ENDGROUP;
\
\| GROUP B -- DISPATCH (IX, P. 36).
\| EACH FORM OF B REQUIRES A DIFFERENT RULE.  IN ADDITION, ONE FORM
\| MAY USE ONE OF THREE RULES DEPENDING ON THE FORM OF A.
\
$GROUP B : 10M/OFF;
\
\| IF A SUBSTITUTION OCCURRED, IT IS DISCOVERED.
\
$RULE :            T(FIRSTBFORM)
                   DISPATCHER DISCOVER SUBSTITUTION;
  10,-10 :         NUM(AFORMTMP) EQ 1 AND NUM(DISPATCHER) EQ 1;
$RULE :            HERO DISCOVER SUBSTITUTION;
  10,-10 :         NUM(AFORMTMP) EQ 1;
$RULE FIRSTBFORM : T($ENDGROUP)
                   *INSERT (DISPATCHER CALLFOR HELP)(HELP FROM SEEKER);
  10,-10 :         (F1 EQL BFORM);
$RULE :            T($ENDGROUP)
                   *INSERT (DISPATCHER SEND SEEKER)(SEND SEARCH1)
                       (SEARCH1 FOR SOBJECT);
  10,-10 :         (F2 EQL BFORM);
$RULE :            T($ENDGROUP)
                   *INSERT (SEEKER ASK1 PERMISSION)(PERMISSION TO1)
                           (TO1 LEAVE);
  10,-10 :         (F3 EQL BFORM);
$SWITCH :          F(AF6);
  10,-10 :         (F4 EQL BFORM);
$RULE :            T(BF4)
                   DISPATCHER CALLFOR HERO;
  -10,10 :         (VILLAGR2 EQL DISPATCHER);
$RULE :            HERO MEET DISPATCHER;
\
\| FOR FORM 4, THE ANNOUNCEMENT REPEATS THE ORIGINAL STATEMENT OF THE
\| VILLAINY AS IN GROUP A, BUT IS PUT INTO THE PAST TENSE.
\
$RULE BF4 :        T($ENDGROUP)
                   *INSERT (DISPATCHER ANNOUNC THAT)
                       (VILLAIN AREL(AFORM) VOBJECT);
  -10,10 :         (AFORM EQL ADIFF);
$RULE :            T($ENDGROUP)
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.
                   *INSERT (DISPATCHER ANNOUNC THAT)
                           (VILLAIN AREL(AFORM) VICTIM);
  10,-10 :         (AFORM EQL F6) OR (AFORM EQL F12);
$RULE :            ($ENDGROUP)
                   *INSERT (DISPATCHER ANNOUNC THAT)
                       (VILLAIN AREL(AFORM) VOBJECT)
                       (VOBJECT AREL2(AFORM) AOBJ(AFORM));
$RULE AF6 :        T($ENDGROUP)
                   *INSERT (HERO FREED)(FREED SECRETLY);
  10,-10 :         (F6 EQL BFORM);
$RULE :            T($ENDGROUP)
                   *INSERT (LAMENT SUNG)(SUNG FOR VICTIM);
  10,-10 :         (F7 EQL BFORM);
$RULE :            *INSERT (OWNER TAKEAWAY VICTIM)(TAKEAWAY FROM HOME);
  10,-10 :         (F5 EQL BFORM);
$ENDGROUP;
\
\
\| GROUP C -- BEGINNING COUNTERACTION (X, P. 38).
\
$GROUP C : 10M /OFF;
$RULE :            *INSERT (SEEKER DECIDE)(DECIDE SEARCH1)
                           (SEARCH1 FOR COBJ);
$ENDGROUP;
\
\| GROUP DEPART -- DEPARTURE (XI, P. 39).
\| A VICTIM-HERO IS ALWAYS ASSUMED TO ALREADY BE AWAY FROM HOME, AND
\| WANDERING IN AN ATTEMPT TO RETURN.
\
$GROUP DEPART : 10M/OFF;
$RULE :            T($ENDGROUP)
                   *INSERT (HERO LEAVE)(LEAVE ON SEARCH);
  -10,10 :         (HERO EQL VICTIM);
$RULE :            HERO WANDERING;
$ENDGROUP;
\
\| GROUP D -- FIRST FUNCTION OF THE DONOR (XII, P. 39).
\| AFTER AN INTRODUCTION, EACH FORM OF D REQUIRES A DIFFERENT (SET OF
\| RULE(S).  SOME FORMS NEED A DESCRIPTION OF THE DONOR.
\
$GROUP D :         10M/OFF;
$RULE :            *INSERT (HERO MEET DONOR )(MEET ALONG WAY);
$RULE :            DONOR DYING;
  10,-10 :         (DFORM EQL F3);
\
\| THESE TWO FORMS USE THE PREDICATE NODE, TASK, WHICH HAS BEEN
\| PREVIOUSLY CONSTRUCTED BY A CALL ON THE NAME OF THE DONOR.
\
$RULE :            T($ENDGROUP)
                   DONOR DREL(DFORM) TASK;
  10,-10 :         (DFORM EQL F1) OR (DFORM EQL F3);
$RULE :            T($ENDGROUP)
                   DONOR GREET HERO,
                   *INSERT (DONOR ASK1 HERO)(ASK1 ANSWER QUESTION);
  10,-10 :         (DFORM EQL F2);
.
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.
$RULE :            T($ENDGROUP)
                   DONOR IMPRISONED,
                   *INSERT (DONOR ASK)(ASK BE)(BE FREED);
  10,-10 :         (DFORM EQL F4);
$RULE :            T($ENDGROUP)
                   *INSERT (DONOR THREATNED)(THREATNED BY HERO),
                   *INSERT (DONOR REQUEST MERCY)(REQUEST FROM HERO);
  10,-10 :         (DFORM EQL F5);
$RULE :            T($ENDGROUP)
                   *INSERT (DONOR FIGHTINGWITH FRIEND)
                       (FIGHTINGWITH OVER DISTYPE),
                   *INSERT (DONOR ASK1 HERO)(ASK1 DIVIDE DISTYPE);
  10,-10 :         (DFORM EQL F6);
$RULE :            T($ENDGROUP)
                   *INSERT (DONOR ATTEMPT)(ATTEMPT BY1)
                     (ATTEMPT KILL1 HERO)(BY1 KILLMETH);
  10,-10 :         (DFORM EQL F8);
$RULE :            T($ENDGROUP)
                   *INSERT (DONOR BRAWL)(BRAWL WITH HERO)
                       (BRAWL IN FORESTHUT);
  10,-10 :         (DFORM EQL F9);
\
\| EITHER ONE OR THREE AGENTS ARE OFFERED FOR EXCHANGE (AS
\| PREVIOUSLY DETERMINED).
\
$RULE :            T($ENDGROUP)
                   *INSERT (DONOR OFFER MAGHELPS)(OFFER TO HERO)
                       (OFFER FOR EXCHANGE);
  10,-10 :         NUM(MAGHELPS) EQ 1;
$RULE :            *INSERT (DONOR OFFER MAGHELP1)(MAGHELP1 RAND
                       MAGHELP2)(MAGHELP2 RAND MAGHELP3),
                   *INSERT (THEY OFFEREDTO HERO)(OFFEREDTO FOR EXCHANGE);
$ENDGROUP;
\
\
\| GROUP E -- REACTION (XIII, P. 42).
\| EACH FORM, WHICH IS PAIRED WITH THE FORM OF D, REQUIRES A
\| DIFFERENT (SET OF) RULE(S).  FORMS 1 AND 3 USE A PREDICATE
\| NODE, TRESP, WHICH HAS BEEN PREVIOUSLY CONSTRUCTED.
\
\
$GROUP E :         10M/OFF;
$RULE :            T($ENDGROUP)
                   HERO PRESPOND TRESP;
  10,-10 :         (DFORM EQL F1);
$RULE :            T($ENDGROUP)
                   HERO ANSWER QUESTION;
  10,-10 :         (DFORM EQL F2);
$RULE :            T($ENDGROUP)
                   HERO PRESPOND TRESP;
  10,-10 :         (DFORM EQL F3);
$RULE :            T($ENDGROUP)
                   HERO FREE DONOR;
  10,-10 :         (DFORM EQL F4);
$RULE :            T($ENDGROUP)
                   *INSERT (HERO SHOW MERCY)(SHOW TOWARD DONOR);
  10,-10 :         (DFORM EQL F5);
$SWITCH :          T(EJUMP);
  -10,10 :         (DFORM EQL F6);
\
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.
\| THE SUBTYPE OF FORM 6 DEPENDS UPON THE TYPE OF THE OBJECT OF THE
\| DISPUTE (MAGICAL OR NON-MAGICAL).
\
$RULE :            T($ENDGROUP)
                   *INSERT (HERO RECONCILE DISPUTE)(RECONCILE BY1)
                           (BY1 DIVIDE DISTYPE)(DIVIDE FAIRLY);
  -10,10 :         (DISTYPE EQL MOALL) OR (DISTYPE EQL MAGCHANGS);
$RULE :            T($ENDGROUP)
                   *INSERT (HERO TRICKV DISPUTANTS)
                       (TRICKV INTOLEAVING DISTYPE)
                       (DISTYPE UNPROTECTED);
$RULE EJUMP :      T($ENDGROUP)
                   *INSERT (HERO KILL1 DONOR)(KILL1 BY1)
                       (BY1 KILLMETH);
  10,-10 :         (DFORM EQL F8);
$RULE :            T($ENDGROUP)
                   HERO DEFEAT DONOR;
  10,-10 :         (DFORM EQL F9);
\
\| THE MAGICAL AGENT USED TO KILL THE DONOR HAS ALREADY BEEN CHECKE
\| FOR PROPER TYPE.
\
$RULE :            *INSERT (HERO AGREE)(AGREE TO EXCHANGE),
                   *INSERT (HERO USE MAGHELPKILL)(USE KILL1 DONOR);
$ENDGROUP;
\
\
\| GROUP F -- RECEIPT (XIV, P. 43).
\| THERE IS ONE BASIC RULE, SUBSCRIPTED ON THE FORM OF F.
\
\
$GROUP F :         10M/OFF;
\
\| TEST FOR THREE AGENTS.
\
$SWITCH :          T(THREE);
  10,-10 :         NUM(MAGHELPS) EQ 3 AND NUM(MAGHELPORIG) EQ 0;
\
\| BASIC RULE FOR F.
\
$RULE :            MAGHELPORIG FREL(FFORM) HERO;
\
\| ADDITIONAL RULE FOR FORMS 2, 3, AND 9.
\
$RULE :            HERO TAKE MAGHELPORIG;
  10,-10 :         (FFORM EQL F2) OR (FFORM EQL F3) OR (FFORM EQL F9)
\
\| TEST FOR THREE AGENTS COMING FROM ANOTHER AGENT.
\
$SWITCH :          T(CHANG3);
  10,-10 :         NUM(MAGHELPS) EQ 3;
\
\| ADDITIONAL RULE FOR FORM SEVEN.
\
$RULE :            T($ENDGROUP)
                   HERO OBTAIN MAGHELPS;
  10,-10 :         (F7 EQL FFORM);
\
\| ADDITIONAL RULE FOR ONE AGENT COMING FROM ANOTHER AGENT.
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.
$RULE :        ($ENDGROUP)
               *INSERT (MAGHELPS COME)(COME FROM MAGHELPORIG);
  10,-10:      (MAGHELPORIG EQL MAGCHANGS);
*
*| THREE MAGICAL AGENTS ACQUIRED.
*
$RULE THREE :  *INSERT (MAGHELP1 RAND MAGHELP3)
                  (MAGHELP1 RAND MAGHELP2)(MAGHELP3 PREL(FFORM) HERO);
$RULE :        ($ENDGROUP)
               HERO TAKE THEM;
  10,-10 :     (FFORM EQL F2) OR (FFORM EQL F3) OR (FFORM EQL F9);
*
*| THREE AGENTS ACQUIRED BY THEIR COMING FROM ANOTHER AGENT.
*
$RULE CHANG3 :*INSERT (MAGHELP1 RAND MAGHELP3)(MAGHELP1 RAND MAGHELP2)
                          (MAGHELP3 COME)(COME FROM MAGHELPORIG);
$ENDGROUP;
*
*|
*| GROUP G -- TRANSFERENCE (XV, P. 50).
*| ONE RULE HANDLES ALL FORMS OF G, EXCEPT THAT A VICTIM-HERO RETURNS
*| HOME.  THEN, THE TRANSPORTATION AGENT IS DESCRIBED.
*
*
$GROUP G :     10M/OFF;
$RULE :        T(METHOD)
               *INSERT (HERO TRAVEL)(TRAVEL TO LOCATIO)
                   (LOCATIO OF SOBJECT)(SOBJECT IN KINGDOM)
                   (KINGDOM OTHER);
  -10,10 :     (SOBJECT EQL VILLAIN) AND (VILLAIN EQL FAMILY);
$RULE :        HERO RETURN HOME;
$RULE METHOD : HERO GREL(GFORM) GHELPER;
$ENDGROUP;
*
*
*| GROUP H -- STRUGGLE (XVI, P. 51).
*| EACH OF THE THREE FORMS REQUIRES A SEPARATE RULE.
*
*
$GROUP H :     10M/OFF;
$RULE :        HERO FIND VILLAIN;
$RULE :        T($ENDGROUP)
               *INSERT (THEY FIGHT)(FIGHT IN FIELD)(FIELD OPEN);
  10,-10 :     (HFORM EQL F1);
$RULE :        T($ENDGROUP)
               *INSERT (THEY ENGAGE)(ENGAGE IN COMPETITION);
  10,-10 :     (HFORM EQL F2);
$RULE :        THEY PLAY CARDS;
$ENDGROUP;
*
*
*| GROUP I -- VICTORY (XVIII, P. 53).
*| EACH FORM REQUIRES A DIFFERENT (SET OF) RULE(S).
*
*
$GROUP I :     10M/OFF;
$SWITCH :      T(ISKIP1);
  -10,10 :     (IFORM EQL F1);
*
*| FOR FORM ONE, IF APPROPRIATE, A MAGICAL AGENT IS USED.
*
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*
$RULE :        T($ENDGROUP )
               *INSERT (VILLAIN DEFEATED)(DEFEATED BADLY);
  10,-10 :     NUM(MAGHELPKILL) EQ 0;
$RULE :        T($ENDGROUP)
               *INSERT (HERO DEFEAT VILLAIN)(DEFEAT WITH AID)(AID OF
                      MAGHELPKILL);
$RULE ISKIP1 : T($ENDGROUP)
               *INSERT (HERO WIN)(WIN WITH HELP)(HELP OF CLEVERNESS)
  10,-10 :     (IFORM EQL F2);
$RULE :        T($ENDGROUP)
               *INSERT (VILLAIN TROUNCED)(TROUNCED AT CARDS);
  10,-10 :     (IFORM EQL F3);
*
*| FOR FORM 5 A MAGICAL AGENT MAY BE USED.
*
$RULE :        HERO SURPRISE VILLAIN;
$RULE :        T($ENDGROUP)
               *INSERT (HERO KILL1 VILLAIN)(KILL1 WITHOUT FIGHT);
  10,-10 :     NUM(MAGHELPKILL) EQ 0;
$RULE :        *INSERT (HERO KILL1 VILLAIN)(KILL1 WITH AID)(AID OF
                      MAGHELPKILL);
$ENDGROUP;
*
*
*| GROUP J -- BRANDING (XVII, P. 52).
*| ONLY ONE POSSIBLE FORM IS IMPLEMENTED.
*
*
$GROUP J :     10M/OFF;
$RULE :        HERO WOUNDED;
$ENDGROUP;
*
*
*| GROUP K -- LIQUIDATION (XIX, P. 53).
*| THERE IS ONE BASIC RULE FOR FUNCTION K.
*
*
$GROUP K :     10M/OFF;
*
*| TEST FOR FUNCTION K ACTING LIKE FUNCTION F.
*
$SWITCH :      T(FORMKF);
  10,-10 :     (KFORM EQL F11);
*
*| TEST FOR FORM K USING A MAGICAL AGENT.
*
$SWITCH :      T(FORMKMAG);
  10,-10 :     (KFORM EQL F5) ;
*
*| BASIC RULE FOR FUNCTION K.  IF THE PREVIOUS ACTION (KILLING THE
*| VILLAIN) HAS ALREADY LIQUIDATED THE MISFORTUNE (THE VILLAIN) THEN
*| NOTHING IS DONE IN FUNCTION K.
*
$RULE :        ($ENDGROUP)
               *INSERT (SOBJECT KREL(KFORM))(KREL(KFORM) BY HERO);
  -10,10 :     (KFORM EQL F4) AND (SOBJECT EQL VILLAIN);
*
*| FUNCTION K ACTS LIKE FUNCTION F, AND THE FORMS OF F ARE USED AGAIN.
*
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.
$RULE FORMKF : T($ENDGROUP)
               SOBJECT FREL(KFFORM) HERO;
*
*| FUNCTION K USES A MAGICAL AGENT.
*
$RULE FORMKMAG : T($ENDGROUP)
               *INSERT (SOBJECT APPEAR)(APPEAR FROM MAGHELPLIQ);
  -10,10 :     (SAFORM EQL F5);
$RULE :        *INSERT (GOLD PRODUCED)(PRODUCED BY MAGHELPLIQ);
$ENDGROUP;
*
*
*| GROUP RETURN (XX, P. 55).
*
*
$GROUP RETURN : 10M/OFF;
$RULE :        T($ENDGROUP)
               *INSERT (HERO START)(START BACK HOME);
  10,-10 :     (HERO EQL VICTIM) OR (SOBJECT EQL VILLAIN) AND
                                    (KFORM NEQ F7);
$RULE :        *INSERT (HERO START)(START WITH SOBJECT)
                     (START BACK HOME);
$ENDGROUP;
*
*
*| GROUP PR -- PURSUIT (XXI, P. 56).
*| AFTER TWO SPECIAL CASES, THERE IS ONE BASIC RULE.
*
*
$GROUP PR :    10M/OFF;
$RULE :        T($ENDGROUP)
               *INSERT (PURSUER TEMPT HERO)
                   (TEMPT BY1)(BY1 CHANGE1)
                   (CHANGE1 INTO OBJECT)(OBJECT ALLURING);
  10,-10 :     (PFORM EQL F4);
$RULE :        T($ENDGROUP)
               PURSUER PURSUE HERO,
               *INSERT (HERO HIDE)(HIDE IN TREE),
               *INSERT (PURSUER ATTEMPT)(ATTEMPT GNAW)(GNAW THROUGH
                   TREE);
  10,-10 :     (PFORM EQL F7);
*
*| BASIC RULE, SUBSCRIPTED ON THE FORM OF P.
*
$RULE :        *INSERT (PURSUER PREL1(PFORM))(PREL1(PFORM)
                     PREL2(PFORM) HERO);
$ENDGROUP;
*
*
*| GROUP RS -- RESCUE (XXII, P. 57).
*| THERE IS ONE SPECIAL CASE, ALL OTHERS BEING HANDLED IN ONE GENERAL
*| RULE.  A RANDOM HELPER IS PICKED, EXCEPT THAT THE HELPER MAY HAVE
*| ALREADY BEEN CHOSEN BY THE MASTER GROUP (IN THE CASE OF A MAGICAL
*| HELPER).
*
*
$GROUP RS :    10M/OFF;
$RULE :        T($ENDGROUP)
               *INSERT (HERO ESCAPE)
                   (ESCAPE BY1)(BY1 RSREL1(RSFORM))
.
.
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.
                   (RSREL1(RSFORM) RSREL2(RSFORM)
                     PICK(PSHELPER(RSFORM))));
-10,10 :       (RSFORM EQL F2);
$RULE:         *INSERT (HERO ESCAPE)
                   (ESCAPE BY1)(BY1 RSREL1(RSFORM))
                   (RSREL1(RSFORM) RSREL2(RSFORM)
                     PICK(RSHELPER(RSFORM)))
                   (RSREL1(RSFORM) RNULL PURSUER);
$ENDGROUP;
*
*
*| GROUP END.
*| A HAPPY ENDING IS ASSURED.
*
*
$GROUP END :   10M/OFF;
$RULE :        T($ENDGROUP)
               HERO RETURN HOME;
  -10,10 :     ((SOBJECT EQL PEOPLE) OR (SAFORM EQL F1))
                   AND NOT (HERO EQL VICTIM);
$RULE :        THEY RETURN HOME;
$ENDGROUP;
*
*
*| THE LAST FIVE GROUPS CORRESPOND TO THE FIVE DONORS WHO ARE CALLED
*| AS GROUPS.  EACH GROUP SETS UP TWO PREDICATE NODES -- ONE FOR THE
*| TASK TO BE GIVEN BY THE DONOR TO THE HERO, THE OTHER FOR THE FINAL
*| (POSITIVE) RESPONSE OF THE HERO.  THIS ALLOWS FOR SIMPLE,
*| GENERAL RULES IN GROUPS D AND E FOR FORMS 1 AND 3.
*
*
$GROUP COW :   10M/OFF;
$RULE :        ULST XX,
               *INSERT (HERO EAT)(MEAT HER)(EAT NOT1)(EAT OF MEAT),
               *INSERT (HERO BE)(BONES IN GARDEN)(RAND1 BURY)
                   (GATHER RAND1)(BE GATHER BONES),
               *INSERT (HERO BE1)(FORGET NOT1)(BE1 FORGET COW),
               *INSERT (HERO FOLLOW INSTRUCTIONS)
                   (INSTRUCTIONS OF COW),
               *DISCADD (HERO EAT) TO TASK,
               *DISCADD (HERO BE1) TO TASK,
               *DISCADD (HERO BE) TO TASK,
               *DISCADD (HERO FOLLOW INSTRUCTIONS) TO TRESP,
               LST XX;
$ENDGROUP;
$GROUP MAN :   10M/OFF;
$RULE :        ULST XX,
               *INSERT (HERO SPEND NIGHTS)(GRAVE HIS)
                   (SPEND BESIDE GRAVE)(NIGHTS THREE),
               *INSERT (HERO SIT)(GRAVE HIS)(NIGHTS THREE)
                   (SIT FOR NIGHTS)(SIT BY GRAVE),
               *DISCADD (HERO SPEND NIGHTS) TO TASK,
               *DISCADD (HERO SIT) TO TRESP,
               LST XX;
$ENDGROUP;
$GROUP STOVE : 10M/OFF;
$RULE :        ULST XX,
               *INSERT (HERO EAT1 MEAL)(HAVE1 PREPARD)
                   (IT HAVE1)(MEAL WHICH IT),
               *INSERT (HERO PARTAKE)(PARTAKE OF MEAL),
.
.
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          .
          .
          .
                               *DISCADD (HERO EATI MEAL) TO TASK,
                               *DISCADD (HERO PARTAKE) TO TRESP,
                               LST XX;
$ENDGROUP;
$GROUP WITCH :                 10M/OFF;
$RULE :                        ULST XX,
                               *INSERT (HERO LISTEN)(WITHOUT1 FALLASLEEP)
                                       (LISTEN TO GUSLA)(LISTEN WITHOUT1),
                               *INSERT (HERO STAY)(LISTEN TO GUSLA)(WHILE1 LISTEN)
                                        (STAY AWAKE)(STAY WHILE1),
                               *DISCADD (HERO LISTEN) TO TASK,
                               *DISCADD (HERO STAY) TO TRESP,
                               LST XX;
$ENDGROUP;
$GROUP FORESTKN : 10M/OFF;
$RULE :                        ULST XX,
                               *INSERT (HERO WORK)(WORK IN FOREST)
                                        (YEARS THREE)(WORK FOR YEARS),
                               *INSERT (HERO SPEND YEARS)(TOIL FOR FORESTKN)
                                  (SPEND TOIL)(SPEND IN FOREST)(YEARS THREE),
                               *DISCADD (HERO WORK) TO TASK,
                               *DISCADD (HERO SPEND YEARS) TO TRESP,
                               LST XX;
$ENDGROUP;
$END ;
```

10.4 Surface Structure//Semantics Rules

TYPES

1	O
2	RA
3	RV
4	RP
5	RPOS
6	RADV
7	RNUL
8	RAND

GRAMMAR

					SUB-TYPE			MAP			TRANS	PRED
1	S	--->	NP	VP	0-O	0-RV	0-	1	2	0	2	0
2	S	--->	NP	AP	0-O	0-R	0-	1	2	0	2	0
3	S	--->	NPR	CONJ	0-O	0-RAND	0-O	1	0	2	1	0
4	S1	--->	NP	VP	0-O	0-RV	0-	1	2	0	3	0
5	AP	--->	IS	MOD	0-R	0-	0-	2	0	0	2	0
6	THAT2	--->	THAT	S	1-O	0-	0-	1	0	0	2	0
7	NP	--->	NARC2		0-O	0-	0-	1	0	0	1	0
8	NP	--->	ART	NPP	0-O	0-	0-	2	0	0	2	0
9	NP	--->	NP	NPP	0-O	0-RPOS	0-O	2	0	1	7	0
10	NP	--->	NPR	CONJ	0-O	0-RAND	0-O	1	0	2	1	0
11	NARC2	--->	NPP		0-O	0-	0-	1	0	0	1	0
12	NPP	--->	NARC		0-O	0-	0-	1	0	0	1	0
13	NPP	--->	N		0-O	0-	0-	1	0	0	1	0
14	NPP	--->	NPP	MOD	0-O	0-RP	0-	1	2	0	2	0
15	NPP	--->	NPP	VP	0-O	0-RV	0-	1	2	0	2	0
16	NPP	--->	NPP	ADJ	0-O	1-RA	0-	1	2	0	1	0
17	NPP	--->	MOD	NPP	0-O	0-RA	0-	2	1	0	1	0
18	NPC	--->	NP	AND1	0-O	0-	0-	1	0	0	1	0
19	NPR	--->	NP		0-O	0-	0-	1	0	0	1	0
20	NPR	--->	NP	VP	0-O	0-RV	0-	1	2	0	6	0
21	NPR	--->	NP	AP	0-O	0-R	0-	1	2	0	6	0
22	NPR	--->	NPR	CONJ1	0-O	0-RAND	0-O	1	0	2	1	0
23	VP	--->	V		0-RV	0-	0-	1	0	0	1	0
24	VP	--->	VP	VP	0-RV	4-RV	0-	1	2	0	4	0
25	VP	--->	VP	VP	3-RV	0-RV	0-	1	2	0	3	0
26	VP	--->	VP	VP	1-RV	0-RV	0-	1	2	0	4	0
27	VP	--->	VP	VP2	0-RV	0-RV	0-	1	2	0	1	0
28	VP	--->	VP	PR1	6-RV	2-O	0-	1	0	0	1	1
29	VP	--->	VP	PR3	5-RV	2-O	0-	1	0	0	1	1
30	VP	--->	VP	PR2	0-RV	2-O	0-	1	0	0	1	1
31	VP	--->	VP	THAT2	2-RV	1-O	0-	1	2	0	5	0
32	VP	--->	VP	THAT2	0-RV	1-O	0-	1	2	0	1	0
33	VP	--->	VP	NP	0-RV	0-O	0-	1	2	0	1	0
34	VP	--->	VP	MOD	0-RV	0-RA	0-	1	2	0	1	0
35	VP	--->	VP	MOD	0-RV	0-RP	0-	1	2	0	1	0
36	VP	--->	VP	ADV	0-RV	1-RADV	0-	1	2	0	1	0
37	VP	--->	ADV	VP	0-RV	0-RADV	0-	2	1	0	1	0
38	VP	--->	VP	CONJ	0-RV	0-RAND	0-	1	2	0	2	0
39	VP	--->	VP	NP	0-RV	0-RNUL	0-O	1	0	2	1	0

GRAMMAR					SUB-TYPE			MAP			TRANS	PRED
40	VP2	--->	PREP		0-RP	0-	0-	1	0	0	1	0
41	VP2	--->	TO	VP	0-RV	0-	0-	2	0	0	3	0
42	VP2	--->	PREP	NP	0-RP	2-O	0-	1	0	0	1	1
43	VP2	--->	PREP	NP	0-RP	0-O	0-	1	2	0	1	0
44	VP2	--->	PREP	MOD	0-RP	0-RV	0-	1	2	0	1	0
45	CONJ	--->	AND	NPR	0-O	0-	0-	2	0	0	1	0
46	CONJ	--->	AND	VP	0-RAND	0-RV	0-	1	2	0	2	0
47	CONJ1	--->	AND1	NP	0-O	0-	0-	2	0	0	1	0
48	PR1	--->	BY	VP	0-O	0-RV	0-	0	2	0	4	0
49	PR2	--->	THAT	61	0-O	0-	0-	2	0	0	1	0
50	PR3	--->	NPC	VP	0-O	0-RV	0-	1	2	0	3	0
51	MOD	--->	PREP		0-RP	0-	0-	1	0	0	1	0
52	MOD	--->	ADJ		0-RA	0-	0-	1	0	0	1	0
53	MOD	--->	VP		0-RV	0-	0-	1	0	0	1	1
54	MOD	--->	MOD	VP	3-RP	0-RV	0-	1	2	0	2	0
55	MOD	--->	MOD	VP	2-RP	0-RV	0-	1	2	0	3	0
56	MOD	--->	MOD	VP	1-RP	0-RV	0-	1	2	0	2	0
57	MOD	--->	MOD	VP	0-RP	0-RV	0-	1	2	0	4	0
58	MOD	--->	MOD	NP	1-RP	0-O	0-	1	2	0	2	0
59	MOD	--->	ADJ	THAT2	0-RA	1-O	0-	1	2	0	1	0
60	MOD	--->	MOD	NP	0-R	0-O	0-	1	2	0	1	0
61	MOD	--->	ADV	ADJ	0-RA	0-RADV	0-	2	1	0	1	0
62	MOD	--->	MOD	VP2	0-RA	0-RV	0-	1	2	0	1	0
63	MOD	--->	MOD	VP2	0-RA	0-RP	0-	1	2	0	1	0

TRANS 3 SETS FEATURE 8 FOR SYMBOL 2
TRANS 3 DELETES FEATURE 5 FOR SYMBOL 2
TRANS 4 SETS FEATURE 7 FOR SYMBOL 2
TRANS 4 DELETES FEATURE 5 FOR SYMBOL 2
TRANS 5 DELETES FEATURE 5 FOR SYMBOL 2
TRANS 5 SETS FEATURE 6 FOR SYMBOL 2
TRANS 6 SETS FEATURE 2 FOR SYMBOL 2
TRANS 7 SETS FEATURE 10 FOR SYMBOL 1

LOWTRANS SUFFIX

1	
2	S
3	ES
4	D
5	ED
6	LY
7	Y
8	ING
9	EN
10	N
11	'S
12	'

CHANGE STACK FOR TIME ØM

```
 1:   (PARANOVS LIVEIN DISTANTP)   SET AT ØM
 2:   (VASILISA IS DAUGHTER)   SET AT ØM
 3:   (DAUGHTER UNLUCKY)   SET AT ØM
 4:   (BALDAK IS FATHER)   SET AT ØM
 5:   (ELENA IS DAUGHTER)   SET AT ØM
 6:   (DAUGHTER BRAVE)   SET AT ØM
 7:   (VLADIMIR IS SON)   SET AT ØM
 8:   (SON WICKED)   SET AT ØM
 9:   (VLADIMIR HATE VASILISA)   SET AT ØM
10:   (MOTHER IS MARTHA)   SET AT ØM
11:   (BALDAK RAND VASILISA)   SET AT ØM
12:   (BALDAK RAND ELENA)   SET AT ØM
13:   (VASILISA IN HOUSE)   SET AT ØM
14:   (BALDAK SAY2 INTERDIC)   SET AT ØM
15:   (ELENA LEAVE1 HOUSE)   SET AT ØM
16:   (BALDAK LEAVE)   SET AT ØM
17:   (LEAVE GOTOWAR)   SET AT ØM
18:   (ELENA LEAVE1 HOUSE)   SET AT ØM
19:   (VLADIMIR ASK1 VILLAGER)   SET AT ØM
20:   (ASK1 WHEREIS VASILISA)   SET AT ØM
21:   (VILLAGER SAY2 THAT)   SET AT ØM
22:   (VASILISA IN HOUSE)   SET AT ØM
23:   (VLADIMIR THREATEA VASILISA)   SET AT ØM
24:   (ELENA ASK1 PERMISSI)   SET AT ØM
25:   (PERMISSI TO1)   SET AT ØM
26:   (TO1 LEAVE)   SET AT ØM
27:   (ELENA DECIDE)   SET AT ØM
28:   (DECIDE SEARCH1)   SET AT ØM
29:   (SEARCH1 FOR HELP)   SET AT ØM
30:   (ELENA LEAVE)   SET AT ØM
31:   (LEAVE ON SEARCH)   SET AT ØM
```

```
THE PARANOVS LIVE IN A DISTANT PROVINCE.
VASILISA IS THE UNLUCKY DAUGHTER.
BALDAK IS THE FATHER.
ELENA IS THE BRAVE DAUGHTER.
VLADIMIR IS THE WICKED SON.
VLADIMIR HATES VASILISA.
THE MOTHER IS MARTHA.
BALDAK , ELENA AND VASILISA ARE IN THE HOUSE.
BALDAK SAYS ELENA , LEAVE THE HOUSE.
BALDAK LEAVES TO GO TO WAR.
ELENA LEAVES THE HOUSE.
VLADIMIR ASKS A VILLAGER WHERE IS VASILISA.
THE VILLAGER SAYS THAT VASILISA IS IN THE HOUSE.
VLADIMIR THREATENS TO EAT VASILISA.
ELENA ASKS PERMISSION TO LEAVE.
ELENA DECIDES TO SEARCH FOR HELP.
ELENA LEAVES ON A SEARCH.
```

Commentary on Change Stack for 0M

Before 1	Form 17 of function A is chosen. Initial classes filled: STORYLOC≍DISTANTPROVINCE, FAMNAM≍PARANOVS, VLOC≍HOUSE(location of villainy), HERO≍ELENA(in family), VILLAIN≍VLADIMIR(in family, allowable due to form of A, but not a parent), VICTIM≍VASILISA(must be in family,) VOBJECT(object of the villainy)≍VICTIM≍VASILISA, OWNER≍BALDAK(father). GROUP PICKPARENTS called and MARTHA picked as the mother.
1-10	GROUP ALPHA.
Before 11	Interdiction will occur. BALDAK picked as ABSENTOR and form 1 of BETA chosen. Form 2 of GAMMA chosen, and an inverted form of interdiction is constructed in the predicate node INTERDICT.
11-15	GROUP GAMMA.
16-17	GROUP BETA.
18	GROUP DELTA.
Before 19	GROUP VILLARIV will be skipped. Reconnaissance chosen to occur. Form 1 of EPSILON will be used since the villain is in the family. EPSOBJECT≍VOBJECT≍VASILISA.
19-20	GROUP EPSILON.
21-22	GROUP PSI.
Before 23	No concomitant forms of villainy are possible. SOBJECT(sought after object)≍VILLAIN≍VLADIMIR.
23	GROUP A.
Before 24	Form 3 of B picked. No DISPATCHER is needed.
24-26	GROUP B.
Before 27	COBJ≍HELP since villain is sought after and in family.
27-29	GROUP C.
30-31	GROUP DEPART.

TALE 51

CHANGE STACK FOR TIME 1D

```
 1:   (ELENA MEET FORESTKN)    SET AT 1D
 2:   (MEET ALONG WAY)    SET AT 1D
 3:   (FORESTKN ATTEMPT)    SET AT 1D
 4:   (ATTEMPT BY1)    SET AT 1D
 5:   (ATTEMPT KILL1 ELENA)    SET AT 1D
 6:   (BY1 ROASTING)    SET AT 1D
 7:   (ELENA KILL1 FORESTKN)    SET AT 1D
 8:   (KILL1 BY1)    SET AT 1D
 9:   (BY1 ROASTING)    SET AT 1D
10:   (MAGFLINT FOUNDBY ELENA)    SET AT 1D
11:   (MAGBOW RAND MAGCARPE)    SET AT 1D
12:   (MAGBOW RAND MAGBIRD)    SET AT 1D
13:   (MAGCARPE COME)    SET AT 1D
14:   (COME FROM MAGFLINT)    SET AT 1D
15:   (ELENA RETURN HOME)    SET AT 1D
16:   (ELENA TRAVELBY MAGCARPE)    SET AT 1D
17:   (ELENA SURPRISE VLADIMIR)    SET AT 1D
18:   (ELENA KILL1 VLADIMIR)    SET AT 1D
19:   (KILL1 WITH AID)    SET AT 1D
20:   (AID OF MAGBOW)    SET AT 1D
```

ELENA MEETS A FOREST KNIGHT ALONG THE WAY.
THE FOREST KNIGHT ATTEMPTS TO KILL ELENA BY ROASTING.
ELENA KILLS THE FOREST KNIGHT BY ROASTING.
A MAGIC FLINT IS FOUND BY ELENA.
A MAGIC BOW , A MAGIC BIRD AND A MAGIC CARPET COME FROM THE MAGIC FLINT.
ELENA RETURNS HOME.
ELENA TRAVELS BY THE MAGIC CARPET.
ELENA SURPRISES VLADIMIR.
ELENA KILLS VLADIMIR WITH THE AID OF THE MAGIC BOW.

Commentary on Change Stack for 1D

Before 1	Donor sequence. MAGICBOW, MAGICBIRD, AND MAGCARPET are chosen as the three magical agents (MAGHELPS) to be acquired. They will come from MAGHELPORIG=MAGFLINT. Form 8 of D picked, and FORESTKN chosen as DONOR.
1-6	GROUP D.
Before 7	Trebling is chosen not to occur.
7-9	GROUP E
Before 10	Based on form of D, form 5 of F is picked.
10-14	GROUP F.
Before 15	There is a magical agent for transference (GHELPER=MAGCARPET). Form 1 of G is chosen based on the magical agent.
15-16	GROUP G
Before 17	There is a magical agent for compat (MAGHELPKILL=MAGBOW). Form 5 of I is used, which doesn't use function H.
17-20	GROUP I.
--	Form 4 of K is picked, since the villain is defeated. GROUP K is called, but produces no output. There is no return, nor a pursuit, since the villain was sought after and in the family.

TALE 51 (cont.)

CHANGE STACK FOR TIME ØM

```
 1:  (POPOVICH LIVEIN CERTAINK)   SET AT ØM
 2:  (EREMA IS FATHER)   SET AT ØM
 3:  (NICHOLAS IS SON)   SET AT ØM
 4:  (SON UNLUCKY)   SET AT ØM
 5:  (NICHOLAS HAVE ANIMALS)   SET AT ØM
 6:  (IVAN IS SON)   SET AT ØM
 7:  (SON BRAVE)   SET AT ØM
 8:  (DRAGON APPEARIN CERTAINK)   SET AT ØM
 9:  (DRAGON PLUNDER ANIMALS)   SET AT ØM
10:  (NICHOLAS CALLFOR HELP)   SET AT ØM
11:  (HELP FROM IVAN)   SET AT ØM
12:  (IVAN DECIDE)   SET AT ØM
13:  (DECIDE SEARCH1)   SET AT ØM
14:  (SEARCH1 FOR DRAGON)   SET AT ØM
15:  (IVAN LEAVE)   SET AT ØM
16:  (LEAVE ON SEARCH)   SET AT ØM
```

THE POPOVICHES LIVE IN A CERTAIN KINGDOM.
EREMA IS THE FATHER.
NICHOLAS IS THE UNLUCKY SON.
NICHOLAS HAS THE ANIMALS.
IVAN IS THE BRAVE SON.
A DRAGON APPEARS IN THE CERTAIN KINGDOM.
THE DRAGON PLUNDERS THE ANIMALS.
NICHOLAS CALLS FOR HELP FROM IVAN.
IVAN DECIDES TO SEARCH FOR THE DRAGON.
IVAN LEAVES ON A SEARCH.

Commentary on Change Stack for 0M

Before 1	Form 5 of functio A picked. Initial classes filled. STORYLOC= CERTAINKINGDOM, FAMNAM= POPOVICHES, HERO= IVAN(in family), VILLAIN= DRAGON, OWNER= VICTIM= NICHOLAS(in family), VOBJECT(object of the villainy)= ANIMALS. GROUP PICKPARENTS called and EREMA is picked as the father.
1-7	GROUP ALPHA
Before 8	Interdiction chosen not to occur.
8	GROUP VILLARIV.
Before 9	Trickery chosen not to occur. No concomitant forms of villainy are possible. SOBJECT(sought after object)= VILLAIN= DRAGON.
9	GROUP A
Before 10	Form 1 of B chosen. DISPATCHER= OWNER= NICHOLAS.
10-11	GROUP B.
12-14	GROUP C.
15-16	GROUP DEPART.

TALE 52

CHANGE STACK FOR TIME 1D

1: (ULST XX) SET AT 1D
2: (IVAN EAT1 MEAL) SET AT 1D
3: (HAVE1 PREPARD) SET AT 1D
4: (IT HAVE1) SET AT 1D
5: (MEAL WHICH IT) SET AT 1D
6: (IVAN PARTAKE) SET AT 1D
7: (PARTAKE OF MEAL) SET AT 1D
8: (LST XX) SET AT 1D
9: (IVAN MEET STOVE) SET AT 1D
10: (MEET ALONG WAY) SET AT 1D
11: (STOVE PROPOSE TASK) SET AT 1D
12: (IVAN EAT1 MEAL) SET AT 1D
13: (MEAL WHICH IT) SET AT 1D
14: (IT HAVE1) SET AT 1D
15: (HAVE1 PREPARD) SET AT 1D
16: (IVAN DONOT) SET AT 1D
17: (DONOT RESPOND) SET AT 1D
18: (STOVE ASK) SET AT 1D
19: (ASK AGAIN) SET AT 1D
20: (IVAN REFUSE) SET AT 1D
21: (STOVE ASK) SET AT 1D
22: (ASK FOR TIME) SET AT 1D
23: (TIME THIRD) SET AT 1D
24: (IVAN PRESPOND TRESP) SET AT 1D
25: (IVAN PARTAKE) SET AT 1D
26: (PARTAKE OF MEAL) SET AT 1D
27: (MAGFLINT SOLDTO IVAN) SET AT 1D
28: (MAGSWORD RAND MAGBIRD) SET AT 1D
29: (MAGSWORD RAND MAGSTEED) SET AT 1D
30: (MAGBIRD COME) SET AT 1D
31: (COME FROM MAGFLINT) SET AT 1D
32: (IVAN TRAVEL) SET AT 1D
33: (TRAVEL TO LOCATIO) SET AT 1D
34: (LOCATIO OF DRAGON) SET AT 1D
35: (DRAGON IN KINGDOM) SET AT 1D
36: (KINGDOM OTHER) SET AT 1D
37: (IVAN TRAVELBY MAGSTEED) SET AT 1D
38: (IVAN SURPRISE DRAGON) SET AT 1D
39: (IVAN KILL1 DRAGON) SET AT 1D
40: (KILL1 WITH AID) SET AT 1D
41: (AID OF MAGSWORD) SET AT 1D
42: (IVAN START) SET AT 1D
43: (START BACK HOME) SET AT 1D
44: (DRAGONWI ATTEMPT) SET AT 1D
45: (ATTEMPT DEVOUR IVAN) SET AT 1D
46: (IVAN ESCAPE) SET AT 1D
47: (ESCAPE BY1) SET AT 1D
48: (BY1 FLY) SET AT 1D
49: (FLY ON MAGBIRD) SET AT 1D
50: (IVAN RETURN HOME) SET AT 1D

TALE 52

(cont.)

Commentary on Change Stack for 1D

Before 1	DONOR SEQUENCE. MAGSWORD, MAGBIRD, and MAGSTEED are chosen as the three magical agents (MAGHELPS) to be acquired. They will come from MAGFLINT(MAGHELPORIG). Since form 1 of D is used, DONOR= STOVE is picked based on that form. The GROUP STOVE is called to set up a task and a response.
1-8	GROUP STOVE. Two predicate nodes are constructed.
9-15	GROUP D. TASK is a predicate node.
16-23	Trebling chosen to occur.
24-26	GROUP E. TRESP is a predicate node.
Before 27	Based on form of D, form 4 of F is chosen.
27-31	GROUP F.
Before 32	There is a magical agent for transference (GHELPER=MAGSTEED). Form 1 of G is chosen based on the magical agent.
32-37	GROUP G.
Before 38	There is a magical agent for combat. Form 5 of I chosen, which doesn't use function H. MAGHELPKILL=MAGSWORD.
38-41	GROUP I
Before 42	Form 4 of K picked, since the villain is defeated GROUP K is called but produces no output.
42-43	GROUP RETURN.
Before 44	Form 5 of Pr chosen with PURSUER=DRAGONWIVES, since the dragon is dead.
44-45	GROUP PR.
Before 46	There is a magical agent for rescue (RHELP=MAGBIRD) so form 1 of Rs is used.
46-49	GROUP RS.
52	GROUP END.

IVAN MEETS A STOVE ALONG THE WAY.
THE STOVE PROPOSES THAT IVAN EAT THE MEAL WHICH IT HAS PREPARED.
IVAN DOES NOT RESPOND.
THE STOVE ASKS AGAIN.
IVAN REFUSES.
THE STOVE ASKS FOR THE THIRD TIME.
IVAN RESPONDS BY PARTAKING OF THE MEAL.
A MAGIC FLINT IS SOLD TO IVAN.
A MAGIC SWORD , A MAGIC STEED AND A MAGIC BIRD COME FROM THE MAGIC FLINT.
IVAN TRAVELS TO THE LOCATION OF THE DRAGON IN THE OTHER KINGDOM.
IVAN TRAVELS BY THE MAGIC STEED.
IVAN SURPRISES THE DRAGON.
IVAN KILLS THE DRAGON WITH THE AID OF THE MAGIC SWORD.
IVAN STARTS BACK HOME.
THE DRAGON'S WIVES ATTEMPT TO DEVOUR IVAN.
IVAN ESCAPES BY FLYING ON THE MAGIC BIRD.
IVAN RETURNS HOME.

53

THE MOREVNAS LIVE IN A DISTANT PROVINCE.
MARTHA IS THE UNLUCKY DAUGHTER.
THE MOTHER IS ELENA.
IVAN IS THE FATHER.
VLADIMIR IS THE BRAVE SON.
ELENA , VLADIMIR AND MARTHA ARE IN THE HUT.
ELENA SAYS VLADIMIR , DO NOT LEAVE THE HUT.
ELENA LEAVES TO GO TO WORK.
VLADIMIR LEAVES THE HUT.
A DRAGON SNEAKS INTO THE DISTANT PROVINCE.
THE DRAGON ABDUCTS MARTHA.
ELENA CALLS FOR HELP FROM VLADIMIR.
VLADIMIR DECIDES TO SEARCH FOR MARTHA.
VLADIMIR LEAVES ON A SEARCH.

VLADIMIR MEETS A WITCH ALONG THE WAY.
THE WITCH BRAWLS IN A FOREST HUT WITH VLADIMIR.
THE WITCH TWICE REPELS VLADIMIR.
THEY FIGHT FOR THE THIRD TIME.
VLADIMIR DEFEATS THE WITCH.
A MAGIC FLINT IS PLACED AT THE DISPOSAL OF VLADIMIR.
VLADIMIR TAKES THE MAGIC FLINT.
A MAGIC BOW , A MAGIC STEED AND A MAGIC CARPET COME FROM THE MAGIC FLINT.
VLADIMIR TRAVELS TO THE LOCATION OF MARTHA IN AN OTHER KINGDOM.
VLADIMIR TRAVELS BY THE MAGIC STEED.
VLADIMIR FINDS THE DRAGON.
THEY FIGHT IN AN OPEN FIELD.
VLADIMIR IS WOUNDED.
VLADIMIR DEFEATS THE DRAGON WITH THE AID OF THE MAGIC BOW.
MARTHA IS FREED BY VLADIMIR.
VLADIMIR STARTS BACK HOME WITH MARTHA.
THE DRAGON'S WIVES ATTEMPT TO KILL VLADIMIR.
VLADIMIR ESCAPES BY FLYING ON THE MAGIC CARPET.
THEY RETURN HOME.

54

THE PARANOVS LIVE IN A CERTAIN KINGDOM.
ALIOSHA IS THE FATHER.
VASILISA IS THE MOTHER.
IVAN IS THE BRAVE SON.
ELENA ALSO LIVES IN THE SAME LAND.
MARIA IS ELENA'S DAUGHTER.
A BEAR WALKS INTO THE CERTAIN KINGDOM.
THE BEAR ASKS A VILLAGER WHERE IS MARIA.
THE VILLAGER SAYS THAT MARIA IS IN THE BARN.
THE BEAR THREATENS TO EAT MARIA.
ELENA SENDS IVAN TO SEARCH FOR THE BEAR.
IVAN LEAVES ON A SEARCH.

IVAN MEETS A WITCH ALONG THE WAY.
THE WITCH GREETS IVAN.
THE WITCH ASKS IVAN TO ANSWER A QUESTION.
IVAN DOES NOT RESPOND.
THE WITCH ASKS AGAIN.
IVAN RESPONDS RUDELY.
THE WITCH ASKS FOR THE THIRD TIME.
IVAN ANSWERS THE QUESTION.
A MAGIC SWORD , A MAGIC CARPET AND A MAGIC BIRD ARE GIVEN TO IVAN.
IVAN TRAVELS TO THE LOCATION OF THE BEAR IN THE OTHER KINGDOM.
IVAN TRAVELS BY THE MAGIC CARPET.
IVAN SURPRISES THE BEAR.
IVAN KILLS THE BEAR WITH THE AID OF THE MAGIC SWORD.
IVAN STARTS BACK HOME.
THE BEAR'S FATHER ATTEMPTS TO KILL IVAN.
IVAN ESCAPES BY FLYING ON THE MAGIC BIRD.
IVAN RETURNS HOME.

55

THE PARANOVS LIVE IN A CERTAIN KINGDOM.
BALDAK IS THE FATHER.
IVAN IS THE BRAVE SON.
ELENA IS THE MOTHER.
KATRINA ALSO LIVES IN THE SAME LAND.
FOMA IS KATRINA'S SON.
A BEAR WALKS INTO THE CERTAIN KINGDOM.
THE BEAR DEMANDS FOMA.
KATRINA REFUSES.
IVAN MEETS A VILLAGER.
THE VILLAGER ANNOUNCES THAT THE BEAR DEMANDED FOMA.
IVAN DECIDES TO SEARCH FOR THE BEAR.
IVAN LEAVES ON A SEARCH.

IVAN MEETS A DEVIL ALONG THE WAY.
THE DEVIL BRAWLS IN A FOREST HUT WITH IVAN.
THE DEVIL TWICE REPELS IVAN.
THEY FIGHT FOR THE THIRD TIME.
IVAN DEFEATS THE DEVIL.
A MAGIC STEED IS SHOWN TO IVAN.
IVAN TAKES THE MAGIC STEED.
IVAN TRAVELS TO THE LOCATION OF THE BEAR IN THE OTHER KINGDOM.
IVAN TRAVELS ON THE MAGIC STEED.
IVAN FINDS THE BEAR.
THEY FIGHT IN AN OPEN FIELD.
IVAN IS WOUNDED.
THE BEAR IS BADLY DEFEATED.
IVAN STARTS BACK HOME.
THE BEAR'S FATHER YELLS FOR IVAN.
IVAN ESCAPES BY FLYING ON THE MAGIC STEED.
IVAN RETURNS HOME.

56

THE PARANOVS LIVE IN A CERTAIN KINGDOM.
ELENA IS THE BRAVE DAUGHTER.
NICHOLAS IS THE WICKED SON.
NICHOLAS HATES DUNIA.
DUNIA IS THE UNLUCKY DAUGHTER.
THE FATHER IS BALDAK.
BALDAK , ELENA AND DUNIA ARE IN THE HUT.
BALDAK SAYS ELENA , DO NOT LEAVE THE HUT.
BALDAK LEAVES TO GO TO WAR.
ELENA LEAVES THE HUT.
NICHOLAS ASKS A VILLAGER WHERE IS DUNIA.
THE VILLAGER SAYS THAT DUNIA IS IN THE HUT.
NICHOLAS CAUSES THE DISAPPEARANCE OF DUNIA.
BALDAK CALLS FOR ELENA.
BALDAK ANNOUNCES THAT NICHOLAS CAUSED THE DISAPPEARANCE OF DUNIA.
ELENA DECIDES TO SEARCH FOR DUNIA.

ELENA MEETS A FOREST KNIGHT ALONG THE WAY.
THE FOREST KNIGHT IS THREATENED BY ELENA.
THE FOREST KNIGHT REQUESTS MERCY FROM ELENA.
ELENA SHOWS MERCY TOWARD THE FOREST KNIGHT.
A MAGIC BOW , A MAGIC STEED AND A MAGIC CARPET ARE GIVEN TO ELENA.
ELENA TRAVELS TO THE LOCATION OF DUNIA IN THE OTHER KINGDOM.
ELENA TRAVELS ON THE MAGIC STEED.
ELENA FINDS NICHOLAS.
THEY FIGHT IN AN OPEN FIELD.
ELENA IS WOUNDED.
ELENA DEFEATS NICHOLAS WITH THE AID OF THE MAGIC BOW.
DUNIA IS OBTAINED BY ELENA.
ELENA STARTS BACK HOME WITH DUNIA.
NICHOLAS CHASES AFTER ELENA.
ELENA ESCAPES BY FLYING ON THE MAGIC CARPET.
THEY RETURN HOME.

57

THE BORISIEVICHES LIVE IN A CERTAIN KINGDOM.
DUNIA IS THE BRAVE DAUGHTER.
ALIOSHA IS THE FATHER.
KATRINA IS THE UNLUCKY DAUGHTER.
KATRINA HAS THE DAYLIGHT.
A WOLF WALKS INTO THE CERTAIN KINGDOM.
THE WOLF DISGUISES HIMSELF AS A BIRD.
THE WOLF USES A MAGIC PIN ON KATRINA.
KATRINA FALLS ASLEEP.
THE WOLF SEIZES THE DAYLIGHT.
DUNIA ASKS PERMISSION TO LEAVE.
DUNIA LEAVES ON A SEARCH.

DUNIA MEETS A WITCH ALONG THE WAY.
THE WITCH IS IMPRISONED.
THE WITCH ASKS TO BE FREED.
DUNIA FREES THE WITCH.
A MAGIC FLINT IS SHOWN TO DUNIA.
DUNIA TAKES THE MAGIC FLINT.
A MAGIC SWORD , A MAGIC CARPET AND A MAGIC BIRD COME FROM THE MAGIC FLINT.
DUNIA TRAVELS TO THE LOCATION OF THE DAYLIGHT IN THE OTHER KINGDOM.
DUNIA TRAVELS BY THE MAGIC CARPET.
DUNIA FINDS THE WOLF.
THEY FIGHT IN AN OPEN FIELD.
DUNIA IS WOUNDED.
DUNIA DEFEATS THE WOLF WITH THE AID OF THE MAGIC SWORD.
THE DAYLIGHT IS SOLD TO DUNIA.
DUNIA STARTS BACK HOME WITH THE DAYLIGHT.
DUNIA RETURNS HOME.

58

THE BERENNIKOVS LIVE IN A CERTAIN KINGDOM.
MARIA IS THE BRAVE DAUGHTER.
ALIOSHA IS THE FATHER.
KATRINA IS THE MOTHER.
EMELYA WHO OWNS A MAGIC HEN ALSO LIVES IN THE SAME LAND.
A DRAGON WALKS INTO THE CERTAIN KINGDOM.
THE DRAGON DISGUISES HIMSELF AS A BIRD.
THE DRAGON USES A SLEEPING POTION ON EMELYA.
EMELYA FALLS ASLEEP.
THE DRAGON SEIZES THE MAGIC HEN.
EMELYA SENDS MARIA TO SEARCH FOR THE MAGIC HEN.
MARIA LEAVES ON A SEARCH.

MARIA MEETS AN OLD MAN ALONG THE WAY.
THE OLD MAN GREETS MARIA.
THE OLD MAN ASKS MARIA TO ANSWER A QUESTION.
MARIA ANSWERS THE QUESTION.
A MAGIC RING IS GIVEN TO MARIA.
A MAGIC SWORD , A MAGIC STEED AND A MAGIC BIRD COME FROM THE MAGIC RING.
MARIA TRAVELS TO THE LOCATION OF THE MAGIC HEN IN THE OTHER KINGDOM.
MARIA TRAVELS ON THE MAGIC STEED.
MARIA SURPRISES THE DRAGON.
MARIA KILLS THE DRAGON WITH THE AID OF THE MAGIC SWORD.
THE MAGIC HEN IS SHOWN TO MARIA.
MARIA STARTS BACK HOME WITH THE MAGIC HEN.
THE DRAGON'S WIVES TEMPT MARIA BY CHANGING INTO AN ALLURING OBJECT.
MARIA ESCAPES BY FLYING ON THE MAGIC BIRD.
MARIA RETURNS HOME.

59

THE MOREVNAS LIVE IN A CERTAIN KINGDOM.
THE MOTHER IS ELENA.
NICHOLAS IS THE FATHER.
BORIS IS THE UNLUCKY SON.
VASILISA ALSO LIVES IN THE SAME LAND.
VASILISA IS OF MIRACULOUS BIRTH.
A BEAR FLYS INTO THE CERTAIN KINGDOM.
THE BEAR DISGUISES HIMSELF AS A BIRD.
THE BEAR USES A MAGIC PIN ON BORIS.
BORIS FALLS ASLEEP.
THE BEAR DECLARES WAR ON BORIS.
ELENA CALLS FOR HELP FROM VASILISA.
VASILISA DECIDES TO SEARCH FOR THE BEAR.

VASILISA MEETS A DEVIL ALONG THE WAY.
THE DEVIL IS IMPRISONED.
THE DEVIL ASKS TO BE FREED.
VASILISA FREES THE DEVIL.
A MAGIC BIRD IS PLACED AT THE DISPOSAL OF VASILISA.
VASILISA TAKES THE MAGIC BIRD.
VASILISA TRAVELS TO THE LOCATION OF THE BEAR IN THE OTHER KINGDOM.
VASILISA TRAVELS BY THE MAGIC BIRD.
VASILISA SURPRISES THE BEAR.
VASILISA KILLS THE BEAR WITHOUT A FIGHT.
VASILISA STARTS BACK HOME.
THE BEAR'S FATHER FLYS AFTER VASILISA.
VASILISA ESCAPES BY FLYING ON THE MAGIC BIRD.
VASILISA RETURNS HOME.

60

THE MOREVNAS LIVE IN A DISTANT PROVINCE.
IVAN IS THE FATHER.
MARTHA IS THE BRAVE DAUGHTER.
NICHOLAS ALSO LIVES IN THE SAME LAND.
MARIA IS NICHOLAS' DAUGHTER.
A DRAGON WALKS INTO THE DISTANT PROVINCE.
THE DRAGON MURDERS MARIA.
NICHOLAS CALLS FOR MARTHA.
NICHOLAS ANNOUNCES THAT THE DRAGON MURDERED MARIA.
MARTHA DECIDES TO SEARCH FOR MARIA.

MARTHA MEETS A FOREST KNIGHT ALONG THE WAY.
THE FOREST KNIGHT IS THREATENED BY MARTHA.
THE FOREST KNIGHT REQUESTS MERCY FROM MARTHA.
MARTHA SHOWS MERCY TOWARD THE FOREST KNIGHT.
A MAGIC FLINT IS SHOWN TO MARTHA.
MARTHA TAKES THE MAGIC FLINT.
A MAGIC SWORD , A MAGIC BIRD AND A MAGIC BOX COME FROM THE MAGIC FLINT.
MARTHA TRAVELS TO THE LOCATION OF MARIA IN AN OTHER KINGDOM.
MARTHA TRAVELS BY THE MAGIC BIRD.
MARTHA SURPRISES THE DRAGON.
MARTHA KILLS THE DRAGON WITH THE AID OF THE MAGIC SWORD.
MARIA APPEARS FROM THE MAGIC BOX.
MARTHA STARTS BACK HOME WITH MARIA.
THE DRAGON'S WIVES ATTEMPT TO DEVOUR MARTHA.
MARTHA ESCAPES BY FLYING ON THE MAGIC BIRD.
THEY RETURN HOME.

61

THE PARANOVS LIVE IN A DISTANT PROVINCE.
VLADIMIR IS THE BRAVE SON.
DUNIA IS THE MOTHER.
ALIOSHA IS THE FATHER.
ELENA ALSO LIVES IN THE SAME LAND.
MARIA IS ELENA'S DAUGHTER.
A WOLF SNEAKS INTO THE DISTANT PROVINCE.
THE WOLF DISGUISES HIMSELF AS A BIRD.
THE WOLF ATTEMPTS TO PERSUADE MARIA TO TAKE A STEAMBATH.
MARIA IS PERSUADED TO TAKE A STEAMBATH.
MARIA FALLS ASLEEP.
THE WOLF DEMANDS MARIA.
MARIA IS GIVEN TO THE WOLF.
ELENA SENDS VLADIMIR TO SEARCH FOR MARIA.
VLADIMIR LEAVES ON A SEARCH.

VLADIMIR MEETS A FOREST KNIGHT ALONG THE WAY.
THE FOREST KNIGHT IS FIGHTING WITH A FRIEND OVER A MAGIC BOX.
THE FOREST KNIGHT ASKS VLADIMIR TO DIVIDE THE MAGIC BOX.
VLADIMIR TRICKS THE DISPUTANTS INTO LEAVING THE MAGIC BOX UNPROTECTED.
THE MAGIC BOX IS SEIZED BY VLADIMIR.
MARIA APPEARS FROM THE MAGIC BOX.
VLADIMIR STARTS BACK HOME WITH MARIA.
THE WOLF ATTEMPTS TO DEVOUR VLADIMIR.
VLADIMIR ESCAPES BY AVOIDING BEING EATEN.
THEY RETURN HOME.

62

THE BERENNIKOVS LIVE IN A DISTANT PROVINCE.
VASILISA IS THE MOTHER.
ALIOSHA IS THE FATHER.
DUNIA IS THE BRAVE DAUGHTER.
EREMA IS THE UNLUCKY SON.
EREMA HAS THE SHEEP.
ALIOSHA , DUNIA AND EREMA ARE IN THE WOODS.
ALIOSHA SAYS DUNIA , LEAVE THE WOODS.
ALIOSHA LEAVES TO GO TO TRADE.
DUNIA LEAVES THE WOODS.
A DRAGON FLYS INTO THE DISTANT PROVINCE.
THE DRAGON PLUNDERS THE SHEEP.
EREMA CALLS FOR HELP FROM DUNIA.
DUNIA DECIDES TO SEARCH FOR THE DRAGON.
DUNIA LEAVES ON A SEARCH.

DUNIA MEETS A WITCH ALONG THE WAY.
THE WITCH PROPOSES THAT DUNIA LISTEN TO THE GUSLA WITHOUT FALLING ASLEEP.
DUNIA FAILS.
DUNIA TRIES AGAIN.
DUNIA FAILS AGAIN.
DUNIA TRIES FOR THE THIRD TIME.
DUNIA RESPONDS BY STAYING AWAKE WHILE LISTENING TO THE GUSLA.
A MAGIC RING IS SHOWN TO DUNIA.
DUNIA TAKES THE MAGIC RING.
A MAGIC CARPET COMES FROM THE MAGIC RING.
DUNIA TRAVELS TO THE LOCATION OF THE DRAGON IN AN OTHER KINGDOM.
DUNIA TRAVELS BY THE MAGIC CARPET.
DUNIA SURPRISES THE DRAGON.
DUNIA KILLS THE DRAGON WITHOUT A FIGHT.
DUNIA STARTS BACK HOME.
THE DRAGON'S WIVES PURSUE DUNIA.
DUNIA HIDES IN A TREE.
THE DRAGON'S WIVES ATTEMPT TO GNAW THROUGH THE TREE.
DUNIA ESCAPES BY FLYING ON THE MAGIC CARPET.
DUNIA RETURNS HOME.

63

THE PARANOVS LIVE IN A DISTANT PROVINCE.
VASILISA IS THE MOTHER.
BALDAK IS THE UNLUCKY SON.
THE FATHER IS VLADIMIR.
MARIA ALSO LIVES IN THE SAME LAND.
MARIA IS OF MIRACULOUS BIRTH.
A BEAR WALKS INTO THE DISTANT PROVINCE.
THE BEAR ASKS A VILLAGER WHERE IS BALDAK.
THE VILLAGER SAYS THAT BALDAK IS IN THE TOWN.
THE BEAR EXPELS BALDAK.
VLADIMIR CALLS FOR HELP FROM MARIA.
MARIA DECIDES TO SEARCH FOR BALDAK.
MARIA LEAVES ON A SEARCH.

MARIA MEETS A JUG ALONG THE WAY.
THE JUG BRAWLS IN A FOREST HUT WITH MARIA.
THE JUG TWICE REPELS MARIA.
THEY FIGHT FOR THE THIRD TIME.
MARIA DEFEATS THE JUG.
A MAGIC BOX IS PLACED AT THE DISPOSAL OF MARIA.
MARIA TAKES THE MAGIC BOX.
MARIA TRAVELS TO THE LOCATION OF BALDAK IN AN OTHER KINGDOM.
MARIA FOLLOWS THE BLOODY TRACKS.
BALDAK APPEARS FROM THE MAGIC BOX.
MARIA STARTS BACK HOME WITH BALDAK.
THE BEAR ATTEMPTS TO KILL MARIA.
MARIA ESCAPES BY AVOIDING BEING KILLED.
THEY RETURN HOME.

64

THE MOREVNAS LIVE IN A CERTAIN KINGDOM.
KATRINA IS THE BRAVE DAUGHTER.
VLADIMIR IS THE FATHER.
DUNIA ALSO LIVES IN THE SAME LAND.
NICHOLAS IS DUNIA'S SON.
A WOLF SNEAKS INTO THE CERTAIN KINGDOM.
THE WOLF DISGUISES HIMSELF AS AN OLD LADY.
THE WOLF USES A MAGIC PIN ON NICHOLAS.
NICHOLAS FALLS ASLEEP.
THE WOLF ABDUCTS NICHOLAS.
KATRINA MEETS A VILLAGER.
THE VILLAGER ANNOUNCES THAT THE WOLF ABDUCTED NICHOLAS.
KATRINA DECIDES TO SEARCH FOR NICHOLAS.

KATRINA MEETS THE FOREST KNIGHT ALONG THE WAY.
THE FOREST KNIGHT PROPOSES KATRINA WORK IN THE FOREST FOR THREE YEARS.
KATRINA DOES NOT RESPOND.
THE FOREST KNIGHT ASKS AGAIN.
KATRINA REFUSES.
THE FOREST KNIGHT ASKS FOR THE THIRD TIME.
KATRINA RESPONDS BY SPENDING THREE YEARS TOILING FOR THE FOREST KNIGHT IN THE FORES
A MAGIC POTION IS CONSUMED BY KATRINA.
KATRINA OBTAINS THE ABILITY TO FLY.
KATRINA TRAVELS TO THE LOCATION OF NICHOLAS IN THE OTHER KINGDOM.
KATRINA TRAVELS BY THE ABILITY TO FLY.
KATRINA FINDS THE WOLF.
THEY PLAY CARDS.
THE WOLF IS TROUNCED AT CARDS.
NICHOLAS IS SOLD TO KATRINA.
KATRINA STARTS BACK HOME WITH NICHOLAS.
THEY RETURN HOME.

65

THE MOREVNAS LIVE IN A DISTANT PROVINCE.
VASILISA IS THE OLDEST DAUGHTER.
VLADIMIR IS THE FATHER.
MARTHA IS THE BRAVE DAUGHTER.
VASILISA SAYS MARTHA , DO NOT GO TO THE HUT.
VASILISA LEAVES TO GO VISITING.
MARTHA GOES TO THE HUT.
A WOLF SNEAKS INTO THE DISTANT PROVINCE.
THE WOLF ASKS A VILLAGER WHERE IS MARTHA.
THE VILLAGER SAYS THAT MARTHA IS IN THE HUT.
THE WOLF DEMANDS MARTHA.
VASILISA REFUSES.
VASILISA TAKES AWAY MARTHA FROM HOME.

MARTHA MEETS A WITCH ALONG THE WAY.
THE WITCH PROPOSES THAT MARTHA LISTEN TO THE GUSLA WITHOUT FALLING ASLEEP.
MARTHA FAILS.
MARTHA TRIES AGAIN.
MARTHA FAILS AGAIN.
MARTHA TRIES FOR THE THIRD TIME.
MARTHA RESPONDS BY STAYING AWAKE WHILE LISTENING TO THE GUSLA.
A MAGIC FLINT IS PLACED AT THE DISPOSAL OF MARTHA.
MARTHA TAKES THE MAGIC FLINT.
A MAGIC BIRD COMES FROM THE MAGIC FLINT.
MARTHA STARTS BACK HOME.
THE WOLF ATTEMPTS TO KILL MARTHA.
MARTHA ESCAPES BY FLYING ON THE MAGIC BIRD.
MARTHA RETURNS HOME.

66

THE POPOVICHES LIVE IN A CERTAIN KINGDOM.
FOMA IS THE OLDEST SON.
MARIA IS THE UNLUCKY DAUGHTER.
BALDAK IS THE FATHER.
EMELYA ALSO LIVES IN THE SAME LAND.
EMELYA IS OF MIRACULOUS BIRTH.
BABAYAGA WALKS INTO THE CERTAIN KINGDOM.
BABAYAGA THREATENS TO MARRY MARIA.
FOMA SENDS EMELYA TO SEARCH FOR BABAYAGA.
EMELYA LEAVES ON A SEARCH.

EMELYA MEETS A WITCH ALONG THE WAY.
THE WITCH IS IMPRISONED.
THE WITCH ASKS TO BE FREED.
EMELYA FREES THE WITCH.
A MAGIC BIRD IS SHOWN TO EMELYA.
EMELYA TAKES THE MAGIC BIRD.
EMELYA TRAVELS TO THE LOCATION OF BABAYAGA IN THE OTHER KINGDOM.
EMELYA TRAVELS BY THE MAGIC BIRD.
EMELYA FINDS BABAYAGA.
THEY ENGAGE IN A COMPETITION.
EMELYA WINS WITH HELP OF CLEVERNESS.
EMELYA STARTS BACK HOME.
BABAYAGA'S DAUGHTER TEMPTS EMELYA BY CHANGING INTO AN ALLURING OBJECT.
EMELYA ESCAPES BY FLYING ON THE MAGIC BIRD.
EMELYA RETURNS HOME.

67

THE MOREVNAS LIVE IN A DISTANT PROVINCE.
THE MOTHER IS DUNIA.
THE OLDEST DAUGHTER IS MARIA.
THE FATHER IS NICHOLAS.
MARIA NEEDS A FIREBIRD.
MARIA ASKS PERMISSION TO LEAVE.
MARIA DECIDES TO SEARCH FOR THE FIREBIRD.
MARIA LEAVES ON A SEARCH.

MARIA MEETS A WITCH ALONG THE WAY.
THE WITCH IS IMPRISONED.
THE WITCH ASKS TO BE FREED.
MARIA FREES THE WITCH.
A MAGIC CARPET , A MAGIC BIRD AND A MAGIC BOX ARE PLACED AT THE DISPOSAL OF MARIA.
MARIA TAKES THEM.
MARIA TRAVELS TO THE LOCATION OF THE FIREBIRD IN AN OTHER KINGDOM.
MARIA TRAVELS BY THE MAGIC BIRD.
THE FIREBIRD APPEARS FROM THE MAGIC BOX.
MARIA STARTS BACK HOME WITH THE FIREBIRD.
MARIA RETURNS HOME.

68

THE PLACE IS A DISTANT PROVINCE.
MARIA IS ALONE.
MARIA NEEDS A HUSBAND.
MARIA DECIDES TO SEARCH FOR A HUSBAND.
MARIA LEAVES ON A SEARCH.

MARIA MEETS A MAN ALONG THE WAY.
THE MAN IS DYING.
THE MAN ASKS THAT MARIA SPEND THREE NIGHTS BESIDE HIS GRAVE.
MARIA RESPONDS BY SITTING FOR THREE NIGHTS BY HIS GRAVE.
A MAGIC BOX APPEARS TO MARIA.
MARIA TRAVELS TO THE LOCATION OF A HUSBAND IN AN OTHER KINGDOM.
MARIA IS DIRECTED BY A BEGGAR.
A HUSBAND APPEARS FROM THE MAGIC BOX.
MARIA STARTS BACK HOME WITH A HUSBAND.
THEY RETURN HOME.

THE PARANOVS LIVE IN A CERTAIN KINGDOM.
MARIA IS THE UNLUCKY DAUGHTER.
MARCO IS THE BRAVE SON.
DUNIA IS THE MOTHER.
THE FATHER IS IVAN.
DUNIA , MARCO AND MARIA ARE IN THE TOWN.
DUNIA SAYS MARCO , DO NOT LEAVE THE TOWN.
DUNIA DIES.
MARCO LEAVES THE TOWN.
A WOLF SNEAKS INTO THE CERTAIN KINGDOM.
THE WOLF TORMENTS MARIA AT NIGHT.
IVAN SENDS MARCO TO SEARCH FOR THE WOLF.
MARCO LEAVES ON A SEARCH.

MARCO MEETS A COW ALONG THE WAY.
THE COW IS FIGHTING WITH A FRIEND OVER BONES.
THE COW ASKS MARCO TO DIVIDE THE BONES.
MARCO RECONCILES THE DISPUTE BY FAIRLY DIVIDING THE BONES.
A MAGIC FLINT IS GIVEN TO MARCO.
A MAGIC SWORD , A MAGIC CARPET AND A MAGIC BIRD COME FROM THE MAGIC FLINT.
MARCO TRAVELS TO THE LOCATION OF THE WOLF IN THE OTHER KINGDOM.
MARCO TRAVELS BY THE MAGIC BIRD.
MARCO SURPRISES THE WOLF.
MARCO KILLS THE WOLF WITH THE AID OF THE MAGIC SWORD.
MARCO STARTS BACK HOME.
THE WOLF PACK TEMPTS MARCO BY CHANGING INTO AN ALLURING OBJECT.
MARCO ESCAPES BY FLYING ON THE MAGIC CARPET.
MARCO RETURNS HOME.

THE PLACE IS A DISTANT PROVINCE.
EREMA IS ALONE.
EREMA NEEDS A MAGIC COW.
EREMA DECIDES TO SEARCH FOR THE MAGIC COW.

EREMA MEETS A DEVIL ALONG THE WAY.
THE DEVIL ATTEMPTS TO KILL EREMA BY DROWNING.
EREMA KILLS THE DEVIL BY DROWNING.
THE MAGIC COW IS SEIZED BY EREMA.
EREMA STARTS BACK HOME WITH THE MAGIC COW.
EREMA RETURNS HOME.

71

THE PLACE IS A CERTAIN KINGDOM.
MARCO IS ALONE.
MARCO NEEDS A MAGIC HEN.
MARCO DECIDES TO SEARCH FOR THE MAGIC HEN.
MARCO LEAVES ON A SEARCH.

MARCO MEETS A FOREST KNIGHT ALONG THE WAY.
THE FOREST KNIGHT BRAWLS IN A FOREST HUT WITH MARCO.
THE FOREST KNIGHT TWICE REPELS MARCO.
THEY FIGHT FOR THE THIRD TIME.
MARCO DEFEATS THE FOREST KNIGHT.
A MAGIC RING IS SHOWN TO MARCO.
MARCO TAKES THE MAGIC RING.
A MAGIC BIRD , A MAGIC STEED AND A MAGIC BOX COME FROM THE MAGIC RING.
MARCO TRAVELS TO THE LOCATION OF THE MAGIC HEN IN THE OTHER KINGDOM.
MARCO TRAVELS BY THE MAGIC STEED.
THE MAGIC HEN APPEARS FROM THE MAGIC BOX.
MARCO STARTS BACK HOME WITH THE MAGIC HEN.
MARCO RETURNS HOME.

72

THE PARANOVS LIVE IN A DISTANT PROVINCE.
EMELYA IS THE UNLUCKY SON.
THE FATHER IS MARCO.
EREMA ALSO LIVES IN THE SAME LAND.
EREMA IS OF MIRACULOUS BIRTH.
A WOLF WALKS INTO THE DISTANT PROVINCE.
THE WOLF ASKS A VILLAGER WHERE IS EMELYA.
THE VILLAGER SAYS THAT EMELYA IS IN THE TOWN.
THE WOLF DEMANDS EMELYA.
EMELYA IS GIVEN TO THE WOLF.
MARCO CALLS FOR HELP FROM EREMA.
EREMA DECIDES TO SEARCH FOR EMELYA.

EREMA MEETS A DEVIL ALONG THE WAY.
THE DEVIL IS THREATENED BY EREMA.
THE DEVIL REQUESTS MERCY FROM EREMA.
EREMA SHOWS MERCY TOWARD THE DEVIL.
A MAGIC BOX IS PLACED AT THE DISPOSAL OF EREMA.
EREMA TAKES THE MAGIC BOX.
EMELYA APPEARS FROM THE MAGIC BOX.
EREMA STARTS BACK HOME WITH EMELYA.
THE WOLF PURSUES EREMA.
EREMA HIDES IN A TREE.
THE WOLF ATTEMPTS TO GNAW THROUGH THE TREE.
EREMA ESCAPES BY JUMPING TO THE OTHER TREE.
THEY RETURN HOME.

73

THE PARANOVS LIVE IN A CERTAIN KINGDOM.
MARCO IS THE FATHER.
NICHOLAS IS THE BRAVE SON.
EMELYA ALSO LIVES IN THE SAME LAND.
FOMA IS EMELYA'S SON.
A WOLF SNEAKS INTO THE CERTAIN KINGDOM.
THE WOLF CASTS A SPELL ON FOMA.
THE WOLF EXPELS FOMA.
NICHOLAS ASKS PERMISSION TO LEAVE.
NICHOLAS DECIDES TO SEARCH FOR FOMA.
NICHOLAS LEAVES ON A SEARCH.

NICHOLAS MEETS A FOREST KNIGHT ALONG THE WAY.
THE FOREST KNIGHT GREETS NICHOLAS.
THE FOREST KNIGHT ASKS NICHOLAS TO ANSWER A QUESTION.
NICHOLAS ANSWERS THE QUESTION.
A MAGIC RING IS SOLD TO NICHOLAS.
A MAGIC SWORD , A MAGIC STEED AND A MAGIC CARPET COME FROM THE MAGIC RING.
NICHOLAS TRAVELS TO THE LOCATION OF FOMA IN THE OTHER KINGDOM.
NICHOLAS TRAVELS BY THE MAGIC STEED.
NICHOLAS FINDS THE WOLF.
THEY FIGHT IN AN OPEN FIELD.
NICHOLAS DEFEATS THE WOLF WITH THE AID OF THE MAGIC SWORD.
FOMA IS FREED FROM THE SPELL BY NICHOLAS.
NICHOLAS STARTS BACK HOME WITH FOMA.
THE WOLF PACK YELLS FOR NICHOLAS.
NICHOLAS ESCAPES BY FLYING ON THE MAGIC CARPET.
THEY RETURN HOME.

74

THE POPOVICHES LIVE IN A DISTANT PROVINCE.
THE FATHER IS IVAN.
THE MOTHER IS KATRINA.
THE OLDEST DAUGHTER IS MARIA.
MARIA NEEDS A HUSBAND.
MARIA ASKS PERMISSION TO LEAVE.
MARIA DECIDES TO SEARCH FOR A HUSBAND.
MARIA LEAVES ON A SEARCH.

MARIA MEETS THE COW ALONG THE WAY.
THE COW IS DYING.
THE COW ASKS THAT MARIA EAT NOT OF HER MEAT.
MARIA IS TO GATHER AND BURY THE BONES IN THE GARDEN.
MARIA IS TO FORGET NOT THE COW.
MARIA RESPONDS BY FOLLOWING THE INSTRUCTIONS OF THE COW.
A MAGIC HEN APPEARS TO MARIA.
MARIA TRAVELS TO THE LOCATION OF A HUSBAND IN AN OTHER KINGDOM.
MARIA IS DIRECTED BY A BEGGAR.
A HUSBAND APPEARS FROM THE MAGIC HEN.
MARIA STARTS BACK HOME WITH A HUSBAND.
THEY RETURN HOME.

75

THE BORISIEVICHES LIVE IN A CERTAIN KINGDOM.
DUNIA IS THE MOTHER.
IVAN IS THE FATHER.
BORIS IS THE BRAVE SON.
FOMA IS THE UNLUCKY SON.
FOMA HAS THE DAYLIGHT.
DUNIA , BORIS AND FOMA ARE IN THE HUT.
DUNIA SAYS BORIS , LEAVE THE HUT.
DUNIA LEAVES TO GO TO THE FOREST.
BORIS LEAVES THE HUT.
A DRAGON SNEAKS INTO THE CERTAIN KINGDOM.
FOMA ASKS THE DRAGON WHERE IS YOUR DEATH.
THE DRAGON SAYS THAT MY DEATH IS IN A MAGIC EGG.
THE DRAGON SEIZES THE DAYLIGHT.
FOMA SENDS BORIS TO SEARCH FOR THE DAYLIGHT.
BORIS LEAVES ON A SEARCH.

BORIS MEETS A FOREST KNIGHT ALONG THE WAY.
THE FOREST KNIGHT IS FIGHTING WITH A FRIEND OVER A MAGIC RING.
THE FOREST KNIGHT ASKS BORIS TO DIVIDE THE MAGIC RING.
BORIS TRICKS THE DISPUTANTS INTO LEAVING THE MAGIC RING UNPROTECTED.
THE MAGIC RING IS SEIZED BY BORIS.
A MAGIC SWORD , A MAGIC STEED AND A MAGIC CARPET COME FROM THE MAGIC RING.
BORIS TRAVELS TO THE LOCATION OF THE DAYLIGHT IN THE OTHER KINGDOM.
BORIS TRAVELS BY THE MAGIC STEED.
BORIS SURPRISES THE DRAGON.
BORIS KILLS THE DRAGON WITH THE AID OF THE MAGIC SWORD.
THE DAYLIGHT IS OBTAINED BY BORIS.
BORIS STARTS BACK HOME WITH THE DAYLIGHT.
THE DRAGON'S WIVES ATTEMPT TO KILL BORIS.
BORIS ESCAPES BY FLYING ON THE MAGIC CARPET.
BORIS RETURNS HOME.

76

THE BORISIEVICHES LIVE IN A CERTAIN KINGDOM.
THE FATHER IS BORIS.
THE OLDEST SON IS FOMA.
THE MOTHER IS MARIA.
FOMA NEEDS WEALTH.
FOMA LEAVES ON A SEARCH.

FOMA MEETS A MAN ALONG THE WAY.
THE MAN IS DYING.
THE MAN ASKS THAT FOMA SPEND THREE NIGHTS BESIDE HIS GRAVE.
FOMA RESPONDS BY SITTING FOR THREE NIGHTS BY HIS GRAVE.
A MAGIC BOX APPEARS TO FOMA.
FOMA TRAVELS TO THE LOCATION OF WEALTH IN THE OTHER KINGDOM.
FOMA DESCENDS BY LEATHER STRAPS.
GOLD IS PRODUCED BY THE MAGIC BOX.
FOMA STARTS BACK HOME WITH WEALTH.
FOMA RETURNS HOME.

77

THE BORISIEVICHES LIVE IN A CERTAIN KINGDOM.
DUNIA IS THE MOTHER.
MARCO IS THE UNLUCKY SON.
MARCO HAS THE ANIMALS.
BORIS ALSO LIVES IN THE SAME LAND.
BORIS IS OF MIRACULOUS BIRTH.
A WOLF APPEARS IN THE CERTAIN KINGDOM.
THE WOLF PLUNDERS THE ANIMALS.
MARCO CALLS FOR HELP FROM BORIS.
BORIS DECIDES TO SEARCH FOR THE WOLF.
BORIS LEAVES ON A SEARCH.

BORIS MEETS A GIANT ALONG THE WAY.
THE GIANT IS THREATENED BY BORIS.
THE GIANT REQUESTS MERCY FROM BORIS.
BORIS SHOWS MERCY TOWARD THE GIANT.
A MAGIC RING IS GIVEN TO BORIS.
A MAGIC BOW , A MAGIC STEED AND A MAGIC BIRD COME FROM THE MAGIC RING.
BORIS TRAVELS TO THE LOCATION OF THE WOLF IN THE OTHER KINGDOM.
BORIS TRAVELS BY THE MAGIC STEED.
BORIS FINDS THE WOLF.
THEY FIGHT IN AN OPEN FIELD.
BORIS DEFEATS THE WOLF WITH THE AID OF THE MAGIC BOW.
BORIS STARTS BACK HOME.
THE WOLF PACK ATTEMPTS TO DEVOUR BORIS.
BORIS ESCAPES BY FLYING ON THE MAGIC BIRD.
BORIS RETURNS HOME.

78

THE MOREVNAS LIVE IN A DISTANT PROVINCE.
THE FATHER IS FOMA.
MARCO IS THE UNLUCKY SON.
ELENA IS THE MOTHER.
KATRINA IS THE BRAVE DAUGHTER.
ELENA , KATRINA AND MARCO ARE IN THE TOWN.
ELENA SAYS KATRINA , DO NOT LEAVE THE TOWN.
ELENA LEAVES TO GO TO THE FOREST.
KATRINA LEAVES THE TOWN.
A BEAR SNEAKS INTO THE DISTANT PROVINCE.
MARCO ASKS THE BEAR WHERE IS YOUR DEATH.
THE BEAR SAYS THAT MY DEATH IS IN A MAGIC EGG.
THE BEAR DECLARES WAR ON MARCO.
FOMA CALLS FOR KATRINA.
FOMA ANNOUNCES THAT THE BEAR DECLARED WAR ON MARCO.
KATRINA DECIDES TO SEARCH FOR THE BEAR.
KATRINA LEAVES ON A SEARCH.

KATRINA MEETS A BULL ALONG THE WAY.
THE BULL IS FIGHTING WITH A FRIEND OVER THE SHEEP.
THE BULL ASKS KATRINA TO DIVIDE THE SHEEP.
KATRINA RECONCILES THE DISPUTE BY FAIRLY DIVIDING THE SHEEP.
A MAGIC SWORD IS GIVEN TO KATRINA.
KATRINA TRAVELS TO THE LOCATION OF THE BEAR IN AN OTHER KINGDOM.
KATRINA TRAVELS ON A SHIP.
KATRINA FINDS THE BEAR.
THEY FIGHT IN AN OPEN FIELD.
KATRINA IS WOUNDED.
KATRINA DEFEATS THE BEAR WITH THE AID OF THE MAGIC SWORD.
KATRINA STARTS BACK HOME.
THE BEAR'S FATHER ATTEMPTS TO KILL KATRINA.
KATRINA ESCAPES BY AVOIDING BEING KILLED.
KATRINA RETURNS HOME.

79

THE PARANOVS LIVE IN A DISTANT PROVINCE.
ELENA IS THE MOTHER.
THE FATHER IS NICHOLAS.
DUNIA IS THE UNLUCKY DAUGHTER.
EMELYA ALSO LIVES IN THE SAME LAND.
EMELYA IS OF MIRACULOUS BIRTH.
BABAYAGA WALKS INTO THE DISTANT PROVINCE.
DUNIA ASKS BABAYAGA WHERE IS YOUR DEATH.
BABAYAGA SAYS THAT MY DEATH IS IN A MAGIC EGG.
BABAYAGA MURDERS DUNIA.
NICHOLAS CALLS FOR HELP FROM EMELYA.
EMELYA LEAVES ON A SEARCH.

EMELYA MEETS A JUG ALONG THE WAY.
THE JUG IS IMPRISONED.
THE JUG ASKS TO BE FREED.
EMELYA FREES THE JUG.
A MAGIC RING IS FOUND BY EMELYA.
A MAGIC SWORD , A MAGIC BIRD AND A MAGIC STEED COME FROM THE MAGIC RING.
EMELYA TRAVELS TO THE LOCATION OF DUNIA IN AN OTHER KINGDOM.
EMELYA TRAVELS ON THE MAGIC STEED.
EMELYA FINDS BABAYAGA.
THEY FIGHT IN AN OPEN FIELD.
EMELYA DEFEATS BABAYAGA WITH THE AID OF THE MAGIC SWORD.
EMELYA STARTS BACK HOME WITH DUNIA.
BABAYAGA'S DAUGHTER PURSUES EMELYA.
EMELYA HIDES IN A TREE.
BABAYAGA'S DAUGHTER ATTEMPTS TO GNAW THROUGH THE TREE.
EMELYA ESCAPES BY FLYING ON THE MAGIC BIRD.
THEY RETURN HOME.

80

THE POPOVICHES LIVE IN A CERTAIN KINGDOM.
IVAN IS THE FATHER.
MARIA IS THE BRAVE DAUGHTER.
VASILISA ALSO LIVES IN THE SAME LAND.
BORIS IS VASILISA'S SON.
A BEAR SNEAKS INTO THE CERTAIN KINGDOM.
THE BEAR DISGUISES HIMSELF AS A YOUNG MAN.
THE BEAR ATTEMPTS TO PERSUADE BORIS TO TAKE A MAGIC RING.
BORIS IS PERSUADED TO TAKE THE MAGIC RING.
BORIS FALLS ASLEEP.
THE BEAR ABDUCTS BORIS.
VASILISA CALLS FOR HELP FROM MARIA.
MARIA LEAVES ON A SEARCH.

MARIA MEETS A DEVIL ALONG THE WAY.
THE DEVIL ATTEMPTS TO KILL MARIA BY ROASTING.
MARIA KILLS THE DEVIL BY ROASTING.
A MAGIC SWORD , A MAGIC STEED AND A MAGIC BIRD ARE FOUND BY MARIA.
MARIA TRAVELS TO THE LOCATION OF BORIS IN THE OTHER KINGDOM.
MARIA TRAVELS BY THE MAGIC STEED.
MARIA SURPRISES THE BEAR.
MARIA KILLS THE BEAR WITH THE AID OF THE MAGIC SWORD.
BORIS IS SEIZED BY MARIA.
MARIA STARTS BACK HOME WITH BORIS.
THEY RETURN HOME.

81

THE BORISIEVICHES LIVE IN A CERTAIN KINGDOM.
EMELYA IS THE UNLUCKY SON.
THE FATHER IS EREMA.
MARCO ALSO LIVES IN THE SAME LAND.
MARCO IS OF MIRACULOUS BIRTH.
BABAYAGA APPEARS IN THE CERTAIN KINGDOM.
BABAYAGA ASKS A VILLAGER WHERE IS EMELYA.
THE VILLAGER SAYS THAT EMELYA IS IN THE FIELDS.
BABAYAGA THREATENS TO EAT EMELYA.
MARCO MEETS A VILLAGER.
THE VILLAGER ANNOUNCES THAT BABAYAGA THREATENED TO EAT EMELYA.
MARCO DECIDES TO SEARCH FOR BABAYAGA.
MARCO LEAVES ON A SEARCH.

MARCO MEETS A WITCH ALONG THE WAY.
THE WITCH GREETS MARCO.
THE WITCH ASKS MARCO TO ANSWER A QUESTION.
MARCO DOES NOT RESPOND.
THE WITCH ASKS AGAIN.
MARCO RESPONDS RUDELY.
THE WITCH ASKS FOR THE THIRD TIME.
MARCO ANSWERS THE QUESTION.
A MAGIC RING IS SOLD TO MARCO.
A MAGIC BOW , A MAGIC BIRD AND A MAGIC STEED COME FROM THE MAGIC RING.
MARCO TRAVELS TO THE LOCATION OF BABAYAGA IN THE OTHER KINGDOM.
MARCO TRAVELS BY THE MAGIC BIRD.
MARCO FINDS BABAYAGA.
THEY FIGHT IN AN OPEN FIELD.
MARCO DEFEATS BABAYAGA WITH THE AID OF THE MAGIC BOW.
MARCO STARTS BACK HOME.
MARCO RETURNS HOME.

82

THE BORISIEVICHES LIVE IN A DISTANT PROVINCE.
EMELYA IS THE FATHER.
KATRINA IS THE BRAVE DAUGHTER.
BORIS WHO OWNS CROPS ALSO LIVES IN THE SAME LAND.
A BEAR APPEARS IN THE DISTANT PROVINCE.
THE BEAR PILLAGES THE CROPS.
BORIS CALLS FOR KATRINA.
BORIS ANNOUNCES THAT THE BEAR PILLAGED THE CROPS.
KATRINA DECIDES TO SEARCH FOR THE BEAR.

KATRINA MEETS AN OLD MAN ALONG THE WAY.
THE OLD MAN OFFERS A MAGIC BOW , A MAGIC STEED AND A MAGIC CARPET.
THEY ARE OFFERED TO KATRINA FOR EXCHANGE.
KATRINA AGREES TO EXCHANGE.
KATRINA USES THE MAGIC BOW TO KILL THE OLD MAN.
KATRINA TRAVELS TO THE LOCATION OF THE BEAR IN AN OTHER KINGDOM.
KATRINA TRAVELS BY THE MAGIC STEED.
KATRINA FINDS THE BEAR.
THEY FIGHT IN AN OPEN FIELD.
KATRINA IS WOUNDED.
KATRINA DEFEATS THE BEAR WITH THE AID OF THE MAGIC BOW.
KATRINA STARTS BACK HOME.
KATRINA RETURNS HOME.

THE BORISIEVICHES LIVE IN A CERTAIN KINGDOM.
ALIOSHA IS THE BRAVE SON.
ELENA IS THE MOTHER.
EREMA IS THE FATHER.
BALDAK ALSO LIVES IN THE SAME LAND.
A WOLF SNEAKS INTO THE CERTAIN KINGDOM.
THE WOLF ASKS A VILLAGER WHERE IS BALDAK.
THE VILLAGER SAYS THAT BALDAK IS IN THE HUT.
THE WOLF PLUCKS OUT BALDAK'S EYE.
BALDAK CALLS FOR HELP FROM ALIOSHA.
ALIOSHA LEAVES ON A SEARCH.

ALIOSHA MEETS A STOVE ALONG THE WAY.
THE STOVE PROPOSES THAT ALIOSHA EAT THE MEAL WHICH IT HAS PREPARED.
ALIOSHA DOES NOT RESPOND.
THE STOVE ASKS AGAIN.
ALIOSHA REFUSES.
THE STOVE ASKS FOR THE THIRD TIME.
ALIOSHA RESPONDS BY PARTAKING OF THE MEAL.
A MAGIC POTION IS CONSUMED BY ALIOSHA.
ALIOSHA OBTAINS THE ABILITY TO FLY.
ALIOSHA TRAVELS TO THE LOCATION OF THE EYE IN THE OTHER KINGDOM.
ALIOSHA TRAVELS BY THE ABILITY TO FLY.
THE EYE IS SEIZED BY ALIOSHA.
ALIOSHA STARTS BACK HOME WITH THE EYE.
THE WOLF ATTEMPTS TO DEVOUR ALIOSHA.
ALIOSHA ESCAPES BY FLYING USING THE ABILITY TO FLY.
ALIOSHA RETURNS HOME.

THE MOREVNAS LIVE IN A DISTANT PROVINCE.
THE FATHER IS EMELYA.
MARIA IS THE MOTHER.
ELENA IS THE UNLUCKY DAUGHTER.
EREMA ALSO LIVES IN THE SAME LAND.
EREMA IS OF MIRACULOUS BIRTH.
A BEAR SNEAKS INTO THE DISTANT PROVINCE.
THE BEAR DISGUISES HIMSELF AS A YOUNG MAN.
THE BEAR USES A SLEEPING POTION ON ELENA.
ELENA FALLS ASLEEP.
THE BEAR DEMANDS ELENA.
EMELYA REFUSES.
EMELYA CALLS FOR EREMA.
EMELYA ANNOUNCES THAT THE BEAR DEMANDED ELENA.
EREMA DECIDES TO SEARCH FOR THE BEAR.
EREMA LEAVES ON A SEARCH.

EREMA MEETS A BULL ALONG THE WAY.
THE BULL OFFERS A MAGIC SWORD , A MAGIC BIRD AND A MAGIC CARPET.
THEY ARE OFFERED TO EREMA FOR EXCHANGE.
EREMA AGREES TO EXCHANGE.
EREMA USES THE MAGIC SWORD TO KILL THE BULL.
EREMA TRAVELS TO THE LOCATION OF THE BEAR IN AN OTHER KINGDOM.
EREMA TRAVELS BY THE MAGIC BIRD.
EREMA SURPRISES THE BEAR.
EREMA KILLS THE BEAR WITH THE AID OF THE MAGIC SWORD.
EREMA STARTS BACK HOME.
THE BEAR'S FATHER ATTEMPTS TO DEVOUR EREMA.
EREMA ESCAPES BY FLYING ON THE MAGIC CARPET.
EREMA RETURNS HOME.

85

THE PARANOVS LIVE IN A CERTAIN KINGDOM.
MARTHA IS THE BRAVE DAUGHTER.
ALIOSHA IS THE FATHER.
BALDAK WHO OWNS CROPS ALSO LIVES IN THE SAME LAND.
A BEAR SNEAKS INTO THE CERTAIN KINGDOM.
THE BEAR DISGUISES HIMSELF AS AN OLD LADY.
THE BEAR USES A SLEEPING POTION ON BALDAK.
BALDAK FALLS ASLEEP.
THE BEAR PILLAGES THE CROPS.
BALDAK SENDS MARTHA TO SEARCH FOR THE BEAR.
MARTHA LEAVES ON A SEARCH.

MARTHA MEETS A FOREST KNIGHT ALONG THE WAY.
THE FOREST KNIGHT ATTEMPTS TO KILL MARTHA BY BEHEADING.
MARTHA KILLS THE FOREST KNIGHT BY BEHEADING.
A MAGIC BOW IS SEIZED BY MARTHA.
MARTHA TRAVELS TO THE LOCATION OF THE BEAR IN THE OTHER KINGDOM.
MARTHA IS DIRECTED BY A BEGGAR.
MARTHA SURPRISES THE BEAR.
MARTHA KILLS THE BEAR WITH THE AID OF THE MAGIC BOW.
MARTHA STARTS BACK HOME.
THE BEAR'S FATHER FLYS AFTER MARTHA.
MARTHA ESCAPES BY FLYING ON A GOOSE.
MARTHA RETURNS HOME.

86

THE BERENNIKOVS LIVE IN A CERTAIN KINGDOM.
THE MOTHER IS MARIA.
THE OLDEST DAUGHTER IS MARTHA.
MARTHA NEEDS WEALTH.
MARTHA DECIDES TO SEARCH FOR WEALTH.
MARTHA LEAVES ON A SEARCH.

MARTHA MEETS A BULL ALONG THE WAY.
THE BULL IS FIGHTING WITH A FRIEND OVER BONES.
THE BULL ASKS MARTHA TO DIVIDE THE BONES.
MARTHA RECONCILES THE DISPUTE BY FAIRLY DIVIDING THE BONES.
A MAGIC CARPET , A MAGIC BIRD AND A MAGIC BOX ARE GIVEN TO MARTHA.
MARTHA TRAVELS TO THE LOCATION OF WEALTH IN THE OTHER KINGDOM.
MARTHA TRAVELS BY THE MAGIC CARPET.
GOLD IS PRODUCED BY THE MAGIC BOX.
MARTHA STARTS BACK HOME WITH WEALTH.
MARTHA RETURNS HOME.

87

THE POPOVICHES LIVE IN A DISTANT PROVINCE.
THE FATHER IS BORIS.
MARTHA IS THE MOTHER.
NICHOLAS IS THE UNLUCKY SON.
KATRINA ALSO LIVES IN THE SAME LAND.
KATRINA IS OF MIRACULOUS BIRTH.
A WOLF FLYS INTO THE DISTANT PROVINCE.
THE WOLF CASTS A SPELL ON NICHOLAS.
NICHOLAS IS REPLACED WITH THE WOLF'S SON.
BORIS DISCOVERS THE SUBSTITUTION.
BORIS CALLS FOR HELP FROM KATRINA.
KATRINA DECIDES TO SEARCH FOR NICHOLAS.
KATRINA LEAVES ON A SEARCH.

KATRINA MEETS A WITCH ALONG THE WAY.
THE WITCH PROPOSES THAT KATRINA LISTEN TO THE GUSLA WITHOUT FALLING ASLEEP.
KATRINA FAILS.
KATRINA TRIES AGAIN.
KATRINA FAILS AGAIN.
KATRINA TRIES FOR THE THIRD TIME.
KATRINA RESPONDS BY STAYING AWAKE WHILE LISTENING TO THE GUSLA.
A MAGIC POTION IS CONSUMED BY KATRINA.
KATRINA OBTAINS INCREDIBLE SPEED.
KATRINA TRAVELS TO THE LOCATION OF NICHOLAS IN AN OTHER KINGDOM.
KATRINA TRAVELS ON INCREDIBLE SPEED.
NICHOLAS IS FREED FROM THE SPELL BY KATRINA.
KATRINA STARTS BACK HOME WITH NICHOLAS.
THE WOLF TEMPTS KATRINA BY CHANGING INTO AN ALLURING OBJECT.
KATRINA ESCAPES BY FLYING USING INCREDIBLE SPEED.
THEY RETURN HOME.

88

THE BORISIEVICHES LIVE IN A CERTAIN KINGDOM.
ALIOSHA IS THE BRAVE SON.
BORIS IS THE FATHER.
VASILISA IS THE MOTHER.
KATRINA ALSO LIVES IN THE SAME LAND.
DUNIA IS KATRINA'S DAUGHTER.
A WOLF WALKS INTO THE CERTAIN KINGDOM.
THE WOLF ABDUCTS DUNIA.
KATRINA SENDS ALIOSHA TO SEARCH FOR DUNIA.
ALIOSHA LEAVES ON A SEARCH.

ALIOSHA MEETS A FOREST KNIGHT ALONG THE WAY.
THE FOREST KNIGHT BRAWLS IN A FOREST HUT WITH ALIOSHA.
ALIOSHA DEFEATS THE FOREST KNIGHT.
A MAGIC BOW , A MAGIC CARPET AND A MAGIC STEED ARE SHOWN TO ALIOSHA.
ALIOSHA TAKES THEM.
ALIOSHA TRAVELS TO THE LOCATION OF DUNIA IN THE OTHER KINGDOM.
ALIOSHA TRAVELS BY THE MAGIC CARPET.
ALIOSHA FINDS THE WOLF.
THEY FIGHT IN AN OPEN FIELD.
ALIOSHA DEFEATS THE WOLF WITH THE AID OF THE MAGIC BOW.
DUNIA APPEARS TO ALIOSHA.
ALIOSHA STARTS BACK HOME WITH DUNIA.
THEY RETURN HOME.

89

THE MOREVNAS LIVE IN A CERTAIN KINGDOM.
EREMA IS THE FATHER.
MARTHA IS THE BRAVE DAUGHTER.
VASILISA WHO OWNS CROPS ALSO LIVES IN THE SAME LAND.
BABAYAGA SNEAKS INTO THE CERTAIN KINGDOM.
BABAYAGA PILLAGES THE CROPS.
MARTHA ASKS PERMISSION TO LEAVE.
MARTHA DECIDES TO SEARCH FOR BABAYAGA.
MARTHA LEAVES ON A SEARCH.

MARTHA MEETS A GIANT ALONG THE WAY.
THE GIANT IS THREATENED BY MARTHA.
THE GIANT REQUESTS MERCY FROM MARTHA.
MARTHA SHOWS MERCY TOWARD THE GIANT.
A MAGIC FLINT IS GIVEN TO MARTHA.
A MAGIC BOW COMES FROM THE MAGIC FLINT.
MARTHA TRAVELS TO THE LOCATION OF BABAYAGA IN THE OTHER KINGDOM.
MARTHA TRAVELS ON A SHIP.
MARTHA FINDS BABAYAGA.
THEY FIGHT IN AN OPEN FIELD.
MARTHA IS WOUNDED.
MARTHA DEFEATS BABAYAGA WITH THE AID OF THE MAGIC BOW.
MARTHA STARTS BACK HOME.
MARTHA RETURNS HOME.

90

THE BORISIEVICHES LIVE IN A DISTANT PROVINCE.
THE OLDEST SON IS ALIOSHA.
THE MOTHER IS ELENA.
THE FATHER IS VLADIMIR.
ALIOSHA NEEDS A GOLD DUCK.
ALIOSHA DECIDES TO SEARCH FOR THE GOLD DUCK.
ALIOSHA LEAVES ON A SEARCH.

ALIOSHA MEETS A COW ALONG THE WAY.
THE COW ATTEMPTS TO KILL ALIOSHA BY ROASTING.
ALIOSHA KILLS THE COW BY ROASTING.
A MAGIC FLINT IS FOUND BY ALIOSHA.
A MAGIC BIRD , A MAGIC CARPET AND A MAGIC HEN COME FROM THE MAGIC FLINT.
ALIOSHA TRAVELS TO THE LOCATION OF THE GOLD DUCK IN AN OTHER KINGDOM.
ALIOSHA TRAVELS BY THE MAGIC CARPET.
THE GOLD DUCK APPEARS FROM THE MAGIC HEN.
ALIOSHA STARTS BACK HOME WITH THE GOLD DUCK.
ALIOSHA RETURNS HOME.

THE POPOVICHES LIVE IN A CERTAIN KINGDOM.
THE MOTHER IS ELENA.
THE FATHER IS FOMA.
FOMA NEEDS THE EGG OF DEATH.
ELENA SENDS FOMA TO SEARCH FOR THE EGG OF DEATH.
FOMA LEAVES ON A SEARCH.

FOMA MEETS THE COW ALONG THE WAY.
THE COW IS DYING.
THE COW ASKS THAT FOMA EAT NOT OF HER MEAT.
FOMA IS TO GATHER AND BURY THE BONES IN THE GARDEN.
FOMA IS TO FORGET NOT THE COW.
FOMA DOES NOT RESPOND.
THE COW ASKS AGAIN.
FOMA REFUSES.
THE COW ASKS FOR THE THIRD TIME.
FOMA RESPONDS BY FOLLOWING THE INSTRUCTIONS OF THE COW.
A MAGIC BOX IS GIVEN TO FOMA.
FOMA TRAVELS TO THE LOCATION OF THE EGG OF DEATH IN THE OTHER KINGDOM.
FOMA CLIMBS A STAIRWAY.
THE EGG OF DEATH APPEARS FROM THE MAGIC BOX.
FOMA STARTS BACK HOME WITH THE EGG OF DEATH.
FOMA RETURNS HOME.

THE BORISIEVICHES LIVE IN A CERTAIN KINGDOM.
VLADIMIR IS THE OLDEST SON.
BORIS IS THE FATHER.
KATRINA IS THE MOTHER.
MARIA IS THE UNLUCKY DAUGHTER.
NICHOLAS ALSO LIVES IN THE SAME LAND.
NICHOLAS IS OF MIRACULOUS BIRTH.
BABAYAGA APPEARS IN THE CERTAIN KINGDOM.
BABAYAGA ASKS A VILLAGER WHERE IS MARIA.
THE VILLAGER SAYS THAT MARIA IS IN THE TOWN.
BABAYAGA ORDERS MARIA INTO THE SEA.
VLADIMIR CALLS FOR HELP FROM NICHOLAS.
NICHOLAS DECIDES TO SEARCH FOR MARIA.
NICHOLAS LEAVES ON A SEARCH.

NICHOLAS MEETS A GIANT ALONG THE WAY.
THE GIANT BRAWLS IN A FOREST HUT WITH NICHOLAS.
THE GIANT TWICE REPELS NICHOLAS.
THEY FIGHT FOR THE THIRD TIME.
NICHOLAS DEFEATS THE GIANT.
A MAGIC BOW , A MAGIC BIRD AND A MAGIC HEN ARE SHOWN TO NICHOLAS.
NICHOLAS TAKES THEM.
MARIA APPEARS FROM THE MAGIC HEN.
NICHOLAS STARTS BACK HOME WITH MARIA.
BABAYAGA ATTEMPTS TO DEVOUR NICHOLAS.
NICHOLAS ESCAPES BY FLYING ON THE MAGIC BIRD.
THEY RETURN HOME.

93

THE MOREVNAS LIVE IN A DISTANT PROVINCE.
MARCO IS THE FATHER.
EREMA IS THE BRAVE SON.
FOMA ALSO LIVES IN THE SAME LAND.
ALIOSHA IS FOMA'S SON.
BABAYAGA SNEAKS INTO THE DISTANT PROVINCE.
BABAYAGA CAUSES THE DISAPPEARANCE OF ALIOSHA.
FOMA CALLS FOR EREMA.
FOMA ANNOUNCES THAT BABAYAGA CAUSED THE DISAPPEARANCE OF ALIOSHA.
EREMA LEAVES ON A SEARCH.

EREMA MEETS A FOREST KNIGHT ALONG THE WAY.
THE FOREST KNIGHT IS IMPRISONED.
THE FOREST KNIGHT ASKS TO BE FREED.
EREMA FREES THE FOREST KNIGHT.
A MAGIC FLINT IS SEIZED BY EREMA.
A MAGIC BOX COMES FROM THE MAGIC FLINT.
ALIOSHA APPEARS FROM THE MAGIC BOX.
EREMA STARTS BACK HOME WITH ALIOSHA.
BABAYAGA CHASES AFTER EREMA.
EREMA ESCAPES BY FLYING ON A FALCON.
THEY RETURN HOME.

94

THE POPOVICHES LIVE IN A CERTAIN KINGDOM.
DUNIA IS THE MOTHER.
THE FATHER IS BORIS.
ALIOSHA IS THE UNLUCKY SON.
BALDAK IS THE BRAVE SON.
EREMA IS THE WICKED SON.
EREMA HATES ALIOSHA.
EREMA ASKS A VILLAGER WHERE IS ALIOSHA.
THE VILLAGER SAYS THAT ALIOSHA IS IN THE TOWN.
EREMA THREATENS TO EAT ALIOSHA.
BORIS CALLS FOR HELP FROM BALDAK.
BALDAK DECIDES TO SEARCH FOR HELP.
BALDAK LEAVES ON A SEARCH.

BALDAK MEETS A WITCH ALONG THE WAY.
THE WITCH PROPOSES BALDAK LISTEN TO THE GUSLA WITHOUT FALLING ASLEEP.
BALDAK FAILS.
BALDAK TRIES AGAIN.
BALDAK FAILS AGAIN.
BALDAK TRIES FOR THE THIRD TIME.
BALDAK RESPONDS BY STAYING AWAKE WHILE LISTENING TO THE GUSLA.
A MAGIC BOW , A MAGIC BIRD AND A MAGIC STEED ARE GIVEN TO BALDAK.
BALDAK RETURNS HOME.
BALDAK TRAVELS BY THE MAGIC STEED.
BALDAK FINDS EREMA.
THEY FIGHT IN AN OPEN FIELD.
BALDAK IS WOUNDED.
BALDAK DEFEATS EREMA WITH THE AID OF THE MAGIC BOW.

THE BORISIEVICHES LIVE IN A DISTANT PROVINCE.
THE FATHER IS ALIOSHA.
EREMA IS THE UNLUCKY SON.
BORIS ALSO LIVES IN THE SAME LAND.
BORIS IS OF MIRACULOUS BIRTH.
BABAYAGA APPEARS IN THE DISTANT PROVINCE.
BABAYAGA DISGUISES HERSELF AS A YOUNG MAN.
BABAYAGA USES A SLEEPING POTION ON EREMA.
EREMA FALLS ASLEEP.
BABAYAGA IMPRISONS EREMA.
ALIOSHA CALLS FOR BORIS.
ALIOSHA ANNOUNCES THAT BABAYAGA IMPRISONED EREMA.
BORIS DECIDES TO SEARCH FOR EREMA.
BORIS LEAVES ON A SEARCH.

BORIS MEETS AN OLD MAN ALONG THE WAY.
THE OLD MAN IS FIGHTING WITH A FRIEND OVER BONES.
THE OLD MAN ASKS BORIS TO DIVIDE THE BONES.
BORIS RECONCILES THE DISPUTE BY FAIRLY DIVIDING THE BONES.
A MAGIC RING IS GIVEN TO BORIS.
A MAGIC SWORD COMES FROM THE MAGIC RING.
BORIS TRAVELS TO THE LOCATION OF EREMA IN AN OTHER KINGDOM.
BORIS IS LED BY A FOX.
BORIS FINDS BABAYAGA.
THEY FIGHT IN AN OPEN FIELD.
BORIS DEFEATS BABAYAGA WITH THE AID OF THE MAGIC SWORD.
EREMA IS OBTAINED BY BORIS.
BORIS STARTS BACK HOME WITH EREMA.
THEY RETURN HOME.

THE BERENNIKOVS LIVE IN A DISTANT PROVINCE.
VASILISA IS THE UNLUCKY DAUGHTER.
ALIOSHA IS THE FATHER.
THE MOTHER IS DUNIA.
KATRINA ALSO LIVES IN THE SAME LAND.
KATRINA IS OF MIRACULOUS BIRTH.
A DRAGON SNEAKS INTO THE DISTANT PROVINCE.
THE DRAGON THREATENS TO MARRY VASILISA.
KATRINA MEETS A VILLAGER.
THE VILLAGER ANNOUNCES THAT THE DRAGON THREATENED TO MARRY VASILISA.
KATRINA LEAVES ON A SEARCH.

KATRINA MEETS A DEVIL ALONG THE WAY.
THE DEVIL GREETS KATRINA.
THE DEVIL ASKS KATRINA TO ANSWER A QUESTION.
KATRINA ANSWERS THE QUESTION.
A MAGIC FLINT IS SOLD TO KATRINA.
A MAGIC BIRD COMES FROM THE MAGIC FLINT.
KATRINA TRAVELS TO THE LOCATION OF THE DRAGON IN AN OTHER KINGDOM.
KATRINA TRAVELS BY THE MAGIC BIRD.
KATRINA FINDS THE DRAGON.
THEY ENGAGE IN A COMPETITION.
KATRINA WINS WITH HELP OF CLEVERNESS.
KATRINA STARTS BACK HOME.
KATRINA RETURNS HOME.

97

THE MOREVNAS LIVE IN A CERTAIN KINGDOM.
ALIOSHA IS THE FATHER.
VASILISA IS THE MOTHER.
BORIS IS THE UNLUCKY SON.
BORIS HAS CROPS.
EMELYA ALSO LIVES IN THE SAME LAND.
EMELYA IS OF MIRACULOUS BIRTH.
BABAYAGA FLYS INTO THE CERTAIN KINGDOM.
BABAYAGA ASKS A VILLAGER WHERE ARE THE CROPS.
THE VILLAGER SAYS THAT THE CROPS ARE IN THE HUT.
BABAYAGA PILLAGES THE CROPS.
BORIS CALLS FOR EMELYA.
BORIS ANNOUNCES THAT BABAYAGA PILLAGED THE CROPS.
EMELYA DECIDES TO SEARCH FOR BABAYAGA.
EMELYA LEAVES ON A SEARCH.

EMELYA MEETS A FOREST KNIGHT ALONG THE WAY.
THE FOREST KNIGHT GREETS EMELYA.
THE FOREST KNIGHT ASKS EMELYA TO ANSWER A QUESTION.
EMELYA DOES NOT RESPOND.
THE FOREST KNIGHT ASKS AGAIN.
EMELYA RESPONDS RUDELY.
THE FOREST KNIGHT ASKS FOR THE THIRD TIME.
EMELYA ANSWERS THE QUESTION.
A MAGIC SWORD IS GIVEN TO EMELYA.
EMELYA TRAVELS TO THE LOCATION OF BABAYAGA IN THE OTHER KINGDOM.
EMELYA IS DIRECTED BY A HEDGEHOG.
EMELYA SURPRISES BABAYAGA.
EMELYA KILLS BABAYAGA WITH THE AID OF THE MAGIC SWORD.
EMELYA STARTS BACK HOME.
EMELYA RETURNS HOME.

98

THE BORISIEVICHES LIVE IN A CERTAIN KINGDOM.
THE FATHER IS EREMA.
THE OLDEST DAUGHTER IS MARIA.
MARIA NEEDS A HUSBAND.
MARIA LEAVES ON A SEARCH.

MARIA MEETS A DEVIL ALONG THE WAY.
THE DEVIL IS THREATENED BY MARIA.
THE DEVIL REQUESTS MERCY FROM MARIA.
MARIA SHOWS MERCY TOWARD THE DEVIL.
A MAGIC BIRD , A MAGIC STEED AND A MAGIC BOX ARE SEIZED BY MARIA.
MARIA TRAVELS TO THE LOCATION OF A HUSBAND IN THE OTHER KINGDOM.
MARIA TRAVELS BY THE MAGIC STEED.
A HUSBAND APPEARS FROM THE MAGIC BOX.
MARIA STARTS BACK HOME WITH A HUSBAND.
THEY RETURN HOME.

99

THE BORISIEVICHES LIVE IN A DISTANT PROVINCE.
VLADIMIR IS THE BRAVE SON.
KATRINA IS THE MOTHER.
EREMA IS THE FATHER.
DUNIA ALSO LIVES IN THE SAME LAND.
VASILISA IS DUNIA'S DAUGHTER.
A BEAR APPEARS IN THE DISTANT PROVINCE.
THE BEAR TORMENTS VASILISA AT NIGHT.
DUNIA CALLS FOR VLADIMIR.
DUNIA ANNOUNCES THAT THE BEAR TORMENTED VASILISA.
VLADIMIR DECIDES TO SEARCH FOR THE BEAR.
VLADIMIR LEAVES ON A SEARCH.

VLADIMIR MEETS A GIANT ALONG THE WAY.
THE GIANT ATTEMPTS TO KILL VLADIMIR BY FEEDING TO RATS.
VLADIMIR KILLS THE GIANT BY FEEDING TO RATS.
A MAGIC RING IS FOUND BY VLADIMIR.
A MAGIC SWORD , A MAGIC STEED AND A MAGIC BIRD COME FROM THE MAGIC RING.
VLADIMIR TRAVELS TO THE LOCATION OF THE BEAR IN AN OTHER KINGDOM.
VLADIMIR TRAVELS BY THE MAGIC STEED.
VLADIMIR SURPRISES THE BEAR.
VLADIMIR KILLS THE BEAR WITH THE AID OF THE MAGIC SWORD.
VLADIMIR STARTS BACK HOME.
THE BEAR'S FATHER ATTEMPTS TO KILL VLADIMIR.
VLADIMIR ESCAPES BY FLYING ON THE MAGIC BIRD.
VLADIMIR RETURNS HOME.

100

THE MOREVNAS LIVE IN A CERTAIN KINGDOM.
THE FATHER IS IVAN.
THE MOTHER IS VASILISA.
VASILISA NEEDS A GOLD DUCK.
IVAN SENDS VASILISA TO SEARCH FOR THE GOLD DUCK.
VASILISA LEAVES ON A SEARCH.

VASILISA MEETS A COW ALONG THE WAY.
THE COW IS THREATENED BY VASILISA.
THE COW REQUESTS MERCY FROM VASILISA.
VASILISA SHOWS MERCY TOWARD THE COW.
A MAGIC HEN IS GIVEN TO VASILISA.
VASILISA TRAVELS TO THE LOCATION OF THE GOLD DUCK IN THE OTHER KINGDOM.
VASILISA IS DIRECTED BY A HEDGEHOG.
THE GOLD DUCK APPEARS FROM THE MAGIC HEN.
VASILISA STARTS BACK HOME WITH THE GOLD DUCK.
VASILISA RETURNS HOME.

THE BERENNIKOVS LIVE IN A DISTANT PROVINCE.
EREMA IS THE UNLUCKY SON.
THE FATHER IS NICHOLAS.
BORIS ALSO LIVES IN THE SAME LAND.
BORIS IS OF MIRACULOUS BIRTH.
BABAYAGA APPEARS IN THE DISTANT PROVINCE.
BABAYAGA DISGUISES HERSELF AS A BIRD.
BABAYAGA ATTEMPTS TO PERSUADE EREMA TO TAKE A SWIM.
EREMA IS PERSUADED TO TAKE A SWIM.
EREMA FALLS ASLEEP.
BABAYAGA THREATENS TO EAT EREMA.
NICHOLAS SENDS BORIS TO SEARCH FOR BABAYAGA.
BORIS LEAVES ON A SEARCH.

BORIS MEETS A BULL ALONG THE WAY.
THE BULL GREETS BORIS.
THE BULL ASKS BORIS TO ANSWER A QUESTION.
BORIS DOES NOT RESPOND.
THE BULL ASKS AGAIN.
BORIS RESPONDS RUDELY.
THE BULL ASKS FOR THE THIRD TIME.
BORIS ANSWERS THE QUESTION.
A MAGIC SWORD , A MAGIC CARPET AND A MAGIC STEED ARE SHOWN TO BORIS.
BORIS TAKES THEM.
BORIS TRAVELS TO THE LOCATION OF BABAYAGA IN AN OTHER KINGDOM.
BORIS TRAVELS ON THE MAGIC STEED.
BORIS FINDS BABAYAGA.
THEY FIGHT IN AN OPEN FIELD.
BORIS DEFEATS BABAYAGA WITH THE AID OF THE MAGIC SWORD.
BORIS STARTS BACK HOME.
BORIS RETURNS HOME.

THE BERENNIKOVS LIVE IN A DISTANT PROVINCE.
THE OLDEST SON IS FOMA.
THE MOTHER IS KATRINA.
THE FATHER IS NICHOLAS.
FOMA NEEDS A BRIDE.
FOMA ASKS PERMISSION TO LEAVE.
FOMA LEAVES ON A SEARCH.

FOMA MEETS A GIANT ALONG THE WAY.
THE GIANT IS FIGHTING WITH A FRIEND OVER THE SHEEP.
THE GIANT ASKS FOMA TO DIVIDE THE SHEEP.
FOMA RECONCILES THE DISPUTE BY FAIRLY DIVIDING THE SHEEP.
A MAGIC CARPET , A MAGIC BIRD AND A MAGIC BOX ARE GIVEN TO FOMA.
FOMA TRAVELS TO THE LOCATION OF A BRIDE IN AN OTHER KINGDOM.
FOMA TRAVELS BY THE MAGIC BIRD.
A BRIDE APPEARS FROM THE MAGIC BOX.
FOMA STARTS BACK HOME WITH A BRIDE.
THEY RETURN HOME.

103

THE POPOVICHES LIVE IN A CERTAIN KINGDOM.
FOMA IS THE FATHER.
THE MOTHER IS ELENA.
MARTHA IS THE UNLUCKY DAUGHTER.
EREMA ALSO LIVES IN THE SAME LAND.
EREMA IS OF MIRACULOUS BIRTH.
A DRAGON APPEARS IN THE CERTAIN KINGDOM.
THE DRAGON DISGUISES HIMSELF AS AN OLD LADY.
THE DRAGON USES A SLEEPING POTION ON MARTHA.
MARTHA FALLS ASLEEP.
THE DRAGON THREATENS TO MARRY MARTHA.
ELENA SENDS EREMA TO SEARCH FOR THE DRAGON.
EREMA LEAVES ON A SEARCH.

EREMA MEETS A BULL ALONG THE WAY.
THE BULL ATTEMPTS TO KILL EREMA BY ROASTING.
EREMA KILLS THE BULL BY ROASTING.
A MAGIC FLINT IS SEIZED BY EREMA.
A MAGIC SWORD , A MAGIC BIRD AND A MAGIC CARPET COME FROM THE MAGIC FLINT.
EREMA TRAVELS TO THE LOCATION OF THE DRAGON IN THE OTHER KINGDOM.
EREMA TRAVELS BY THE MAGIC CARPET.
EREMA SURPRISES THE DRAGON.
EREMA KILLS THE DRAGON WITH THE AID OF THE MAGIC SWORD.
EREMA STARTS BACK HOME.
THE DRAGON'S WIVES CHASE AFTER EREMA.
EREMA ESCAPES BY FLYING ON THE MAGIC BIRD.
EREMA RETURNS HOME.

104

THE BERENNIKOVS LIVE IN A CERTAIN KINGDOM.
BORIS IS THE FATHER.
KATRINA IS THE MOTHER.
EREMA IS THE BRAVE SON.
IVAN ALSO LIVES IN THE SAME LAND.
MARIA IS IVAN'S DAUGHTER.
A BEAR SNEAKS INTO THE CERTAIN KINGDOM.
MARIA ASKS THE BEAR WHERE IS YOUR DEATH.
THE BEAR SAYS THAT MY DEATH IS IN A MAGIC EGG.
THE BEAR ABDUCTS MARIA.
IVAN CALLS FOR HELP FROM EREMA.
EREMA DECIDES TO SEARCH FOR MARIA.
EREMA LEAVES ON A SEARCH.

EREMA MEETS A GIANT ALONG THE WAY.
THE GIANT IS IMPRISONED.
THE GIANT ASKS TO BE FREED.
EREMA FREES THE GIANT.
A MAGIC RING IS PLACED AT THE DISPOSAL OF EREMA.
EREMA TAKES THE MAGIC RING.
A MAGIC SWORD , A MAGIC STEED AND A MAGIC CARPET COME FROM THE MAGIC RING.
EREMA TRAVELS TO THE LOCATION OF MARIA IN THE OTHER KINGDOM.
EREMA TRAVELS BY THE MAGIC STEED.
EREMA SURPRISES THE BEAR.
EREMA KILLS THE BEAR WITH THE AID OF THE MAGIC SWORD.
MARIA IS OBTAINED BY EREMA.
EREMA STARTS BACK HOME WITH MARIA.
THE BEAR'S FATHER CHASES AFTER EREMA.
EREMA ESCAPES BY FLYING ON THE MAGIC CARPET.
THEY RETURN HOME.

105

THE BERENNIKOVS LIVE IN A CERTAIN KINGDOM.
BORIS IS THE UNLUCKY SON.
BORIS HAS THE CATTLE.
KATRINA IS THE MOTHER.
VLADIMIR IS THE FATHER.
FOMA ALSO LIVES IN THE SAME LAND.
FOMA IS OF MIRACULOUS BIRTH.
A WOLF WALKS INTO THE CERTAIN KINGDOM.
THE WOLF PLUNDERS THE CATTLE.
BORIS CALLS FOR FOMA.
BORIS ANNOUNCES THAT THE WOLF PLUNDERED THE CATTLE.
FOMA DECIDES TO SEARCH FOR THE WOLF.

FOMA MEETS A JUG ALONG THE WAY.
THE JUG IS FIGHTING WITH A FRIEND OVER A MAGIC FLINT.
THE JUG ASKS FOMA TO DIVIDE THE MAGIC FLINT.
FOMA TRICKS THE DISPUTANTS INTO LEAVING THE MAGIC FLINT UNPROTECTED.
THE MAGIC FLINT IS SEIZED BY FOMA.
A MAGIC CARPET COMES FROM THE MAGIC FLINT.
FOMA TRAVELS TO THE LOCATION OF THE WOLF IN THE OTHER KINGDOM.
FOMA TRAVELS BY THE MAGIC CARPET.
FOMA FINDS THE WOLF.
THEY ENGAGE IN A COMPETITION.
FOMA WINS WITH HELP OF CLEVERNESS.
FOMA STARTS BACK HOME.
FOMA RETURNS HOME.

106

THE POPOVICHES LIVE IN A CERTAIN KINGDOM.
DUNIA IS THE MOTHER.
MARCO IS THE UNLUCKY SON.
VASILISA ALSO LIVES IN THE SAME LAND.
VASILISA IS OF MIRACULOUS BIRTH.
A BEAR APPEARS IN THE CERTAIN KINGDOM.
THE BEAR CUTS OFF MARCO'S LEG.
VASILISA MEETS A VILLAGER.
THE VILLAGER ANNOUNCES THAT THE BEAR INJURED MARCO.
VASILISA LEAVES ON A SEARCH.

VASILISA MEETS A FOREST KNIGHT ALONG THE WAY.
THE FOREST KNIGHT IS THREATENED BY VASILISA.
THE FOREST KNIGHT REQUESTS MERCY FROM VASILISA.
VASILISA SHOWS MERCY TOWARD THE FOREST KNIGHT.
A MAGIC FLINT IS FOUND BY VASILISA.
A MAGIC STEED COMES FROM THE MAGIC FLINT.
VASILISA TRAVELS TO THE LOCATION OF THE LEG IN THE OTHER KINGDOM.
VASILISA TRAVELS BY THE MAGIC STEED.
THE LEG IS SEIZED BY VASILISA.
VASILISA STARTS BACK HOME WITH THE LEG.
THE BEAR ATTEMPTS TO KILL VASILISA.
VASILISA ESCAPES BY FLYING ON THE MAGIC STEED.
VASILISA RETURNS HOME.

107

THE BERENNIKOVS LIVE IN A CERTAIN KINGDOM.
DUNIA IS THE MOTHER.
VLADIMIR IS THE BRAVE SON.
ELENA ALSO LIVES IN THE SAME LAND.
ALIOSHA IS ELENA'S SON.
A BEAR SNEAKS INTO THE CERTAIN KINGDOM.
ALIOSHA ASKS THE BEAR WHERE IS YOUR WISDOM.
THE BEAR SAYS THAT MY WISDOM IS IN A MAGIC EGG.
THE BEAR ABDUCTS ALIOSHA.
VLADIMIR MEETS A VILLAGER.
THE VILLAGER ANNOUNCES THAT THE BEAR ABDUCTED ALIOSHA.
VLADIMIR DECIDES TO SEARCH FOR ALIOSHA.
VLADIMIR LEAVES ON A SEARCH.

VLADIMIR MEETS A JUG ALONG THE WAY.
THE JUG BRAWLS IN A FOREST HUT WITH VLADIMIR.
THE JUG TWICE REPELS VLADIMIR.
THEY FIGHT FOR THE THIRD TIME.
VLADIMIR DEFEATS THE JUG.
A MAGIC SWORD IS PLACED AT THE DISPOSAL OF VLADIMIR.
VLADIMIR TAKES THE MAGIC SWORD.
VLADIMIR TRAVELS TO THE LOCATION OF ALIOSHA IN THE OTHER KINGDOM.
VLADIMIR FOLLOWS THE BLOODY TRACKS.
VLADIMIR SURPRISES THE BEAR.
VLADIMIR KILLS THE BEAR WITH THE AID OF THE MAGIC SWORD.
ALIOSHA IS SEIZED BY VLADIMIR.
VLADIMIR STARTS BACK HOME WITH ALIOSHA.
THE BEAR'S FATHER FLYS AFTER VLADIMIR.
VLADIMIR ESCAPES BY BEING HIDDEN BY BLACKSMITHS.
THEY RETURN HOME.

108

THE PARANOVS LIVE IN A DISTANT PROVINCE.
EREMA IS THE BRAVE SON.
VASILISA IS THE UNLUCKY DAUGHTER.
MARIA IS THE MOTHER.
THE FATHER IS BALDAK.
BALDAK , EREMA AND VASILISA ARE IN THE FIELDS.
BALDAK SAYS EREMA , LEAVE THE FIELDS.
BALDAK LEAVES TO GO TO WORK.
EREMA LEAVES THE FIELDS.
A DRAGON SNEAKS INTO THE DISTANT PROVINCE.
THE DRAGON ASKS A VILLAGER WHERE IS VASILISA.
THE VILLAGER SAYS THAT VASILISA IS IN THE FIELDS.
THE DRAGON THREATENS TO MARRY VASILISA.
BALDAK CALLS FOR EREMA.
BALDAK ANNOUNCES THAT THE DRAGON THREATENED TO MARRY VASILISA.
EREMA DECIDES TO SEARCH FOR THE DRAGON.
EREMA LEAVES ON A SEARCH.

EREMA MEETS A COW ALONG THE WAY.
THE COW GREETS EREMA.
THE COW ASKS EREMA TO ANSWER A QUESTION.
EREMA ANSWERS THE QUESTION.
A MAGIC RING IS SHOWN TO EREMA.
EREMA TAKES THE MAGIC RING.
A MAGIC BOW COMES FROM THE MAGIC RING.
EREMA TRAVELS TO THE LOCATION OF THE DRAGON IN AN OTHER KINGDOM.
EREMA TRAVELS ON A HORSE.
EREMA SURPRISES THE DRAGON.
EREMA KILLS THE DRAGON WITH THE AID OF THE MAGIC BOW.
EREMA STARTS BACK HOME.
THE DRAGON'S WIVES PURSUE EREMA.
EREMA HIDES IN A TREE.
THE DRAGON'S WIVES ATTEMPT TO GNAW THROUGH THE TREE.
EREMA ESCAPES BY JUMPING TO THE OTHER TREE.
EREMA RETURNS HOME.

109

THE PARANOVS LIVE IN A DISTANT PROVINCE.
KATRINA IS THE MOTHER.
BORIS IS THE UNLUCKY SON.
BORIS HAS CROPS.
MARIA ALSO LIVES IN THE SAME LAND.
MARIA IS OF MIRACULOUS BIRTH.
A BEAR WALKS INTO THE DISTANT PROVINCE.
THE BEAR ASKS A VILLAGER WHERE ARE THE CROPS.
THE VILLAGER SAYS THAT THE CROPS ARE IN THE HUT.
THE BEAR PILLAGES THE CROPS.
MARIA MEETS A VILLAGER.
THE VILLAGER ANNOUNCES THAT THE BEAR PILLAGED THE CROPS.
MARIA LEAVES ON A SEARCH.

MARIA MEETS A JUG ALONG THE WAY.
THE JUG GREETS MARIA.
THE JUG ASKS MARIA TO ANSWER A QUESTION.
MARIA ANSWERS THE QUESTION.
A MAGIC FLINT IS SHOWN TO MARIA.
MARIA TAKES THE MAGIC FLINT.
A MAGIC BIRD COMES FROM THE MAGIC FLINT.
MARIA TRAVELS TO THE LOCATION OF THE BEAR IN AN OTHER KINGDOM.
MARIA TRAVELS BY THE MAGIC BIRD.
MARIA SURPRISES THE BEAR.
MARIA KILLS THE BEAR WITHOUT A FIGHT.
MARIA STARTS BACK HOME.
THE BEAR'S FATHER ATTEMPTS TO KILL MARIA.
MARIA ESCAPES BY FLYING ON THE MAGIC BIRD.
MARIA RETURNS HOME.

110

THE MOREVNAS LIVE IN A DISTANT PROVINCE.
THE MOTHER IS KATRINA.
IVAN IS THE UNLUCKY SON.
FOMA IS THE BRAVE SON.
VLADIMIR IS THE FATHER.
A DRAGON FLYS INTO THE DISTANT PROVINCE.
IVAN ASKS THE DRAGON WHERE IS YOUR WISDOM.
THE DRAGON SAYS THAT MY WISDOM IS IN A MAGIC EGG.
THE DRAGON CASTS A SPELL ON IVAN.
THE DRAGON EXPELS IVAN.
FOMA DECIDES TO SEARCH FOR IVAN.
FOMA LEAVES ON A SEARCH.

FOMA MEETS A WITCH ALONG THE WAY.
THE WITCH PROPOSES FOMA LISTEN TO THE GUSLA WITHOUT FALLING ASLEEP.
FOMA RESPONDS BY STAYING AWAKE WHILE LISTENING TO THE GUSLA.
A MAGIC BOW IS GIVEN TO FOMA.
FOMA TRAVELS TO THE LOCATION OF IVAN IN AN OTHER KINGDOM.
FOMA CLIMBS A STAIRWAY.
FOMA FINDS THE DRAGON.
THEY FIGHT IN AN OPEN FIELD.
FOMA IS WOUNDED.
FOMA DEFEATS THE DRAGON WITH THE AID OF THE MAGIC BOW.
IVAN IS FREED FROM THE SPELL BY FOMA.
FOMA STARTS BACK HOME WITH IVAN.
THE DRAGON'S WIVES YELL FOR FOMA.
FOMA ESCAPES BY BEING HIDDEN BY BLACKSMITHS.
THEY RETURN HOME.

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